



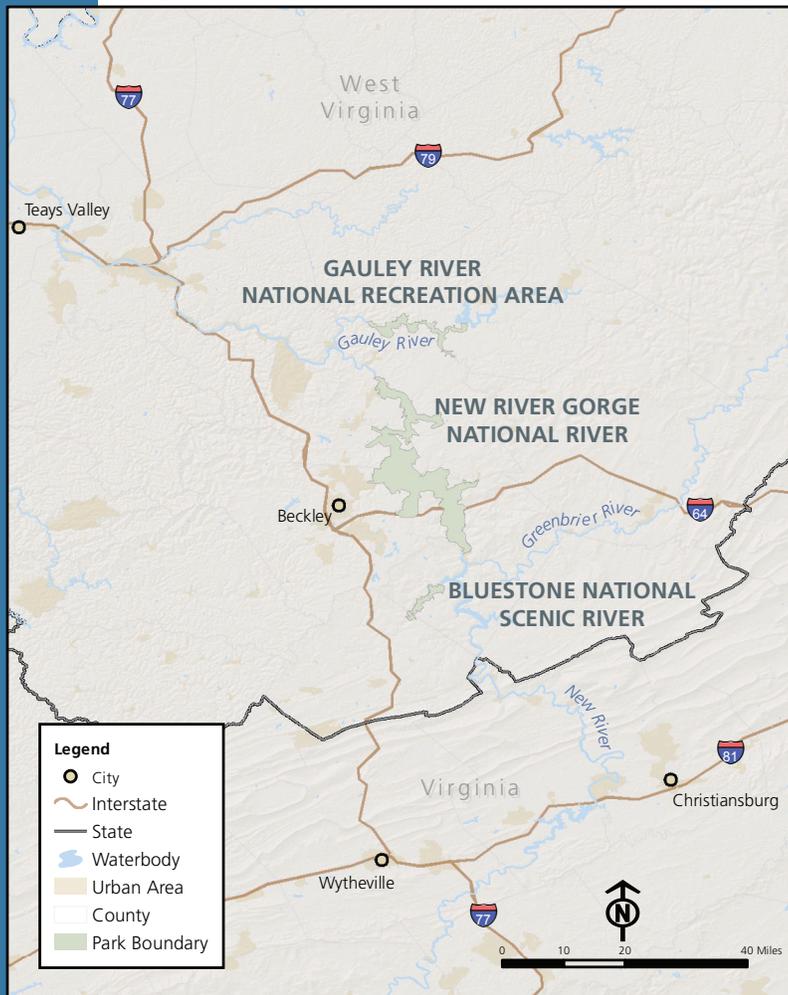
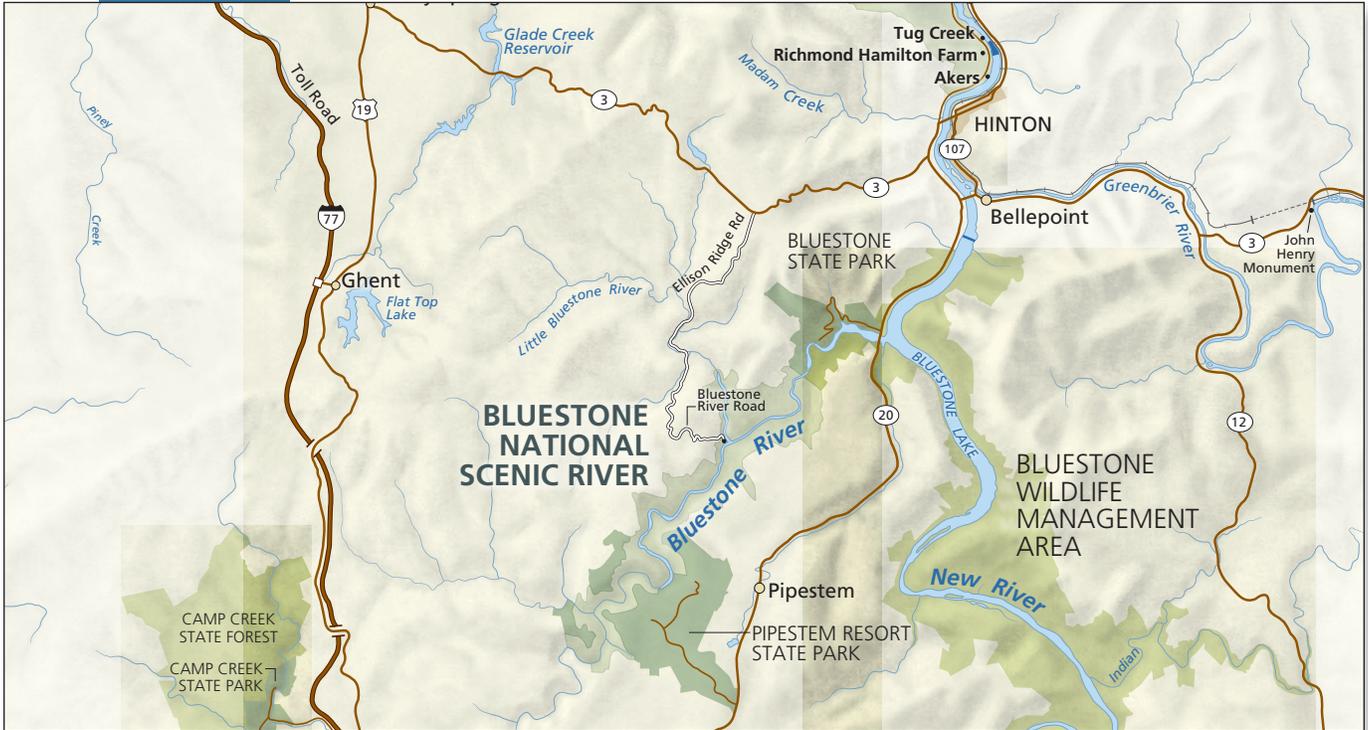
# Foundation Document

## Bluestone National Scenic River

West Virginia

March 2016





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## Mission of the National Park Service

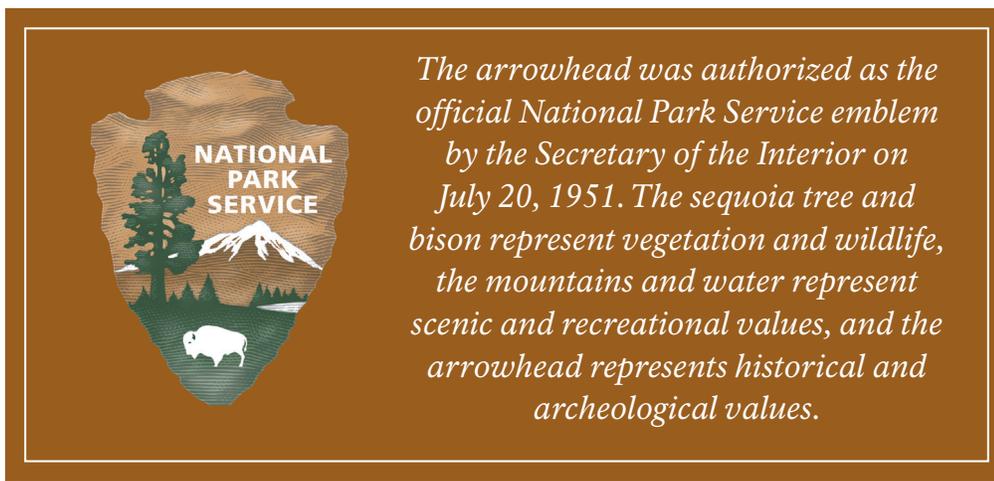
The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the US Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



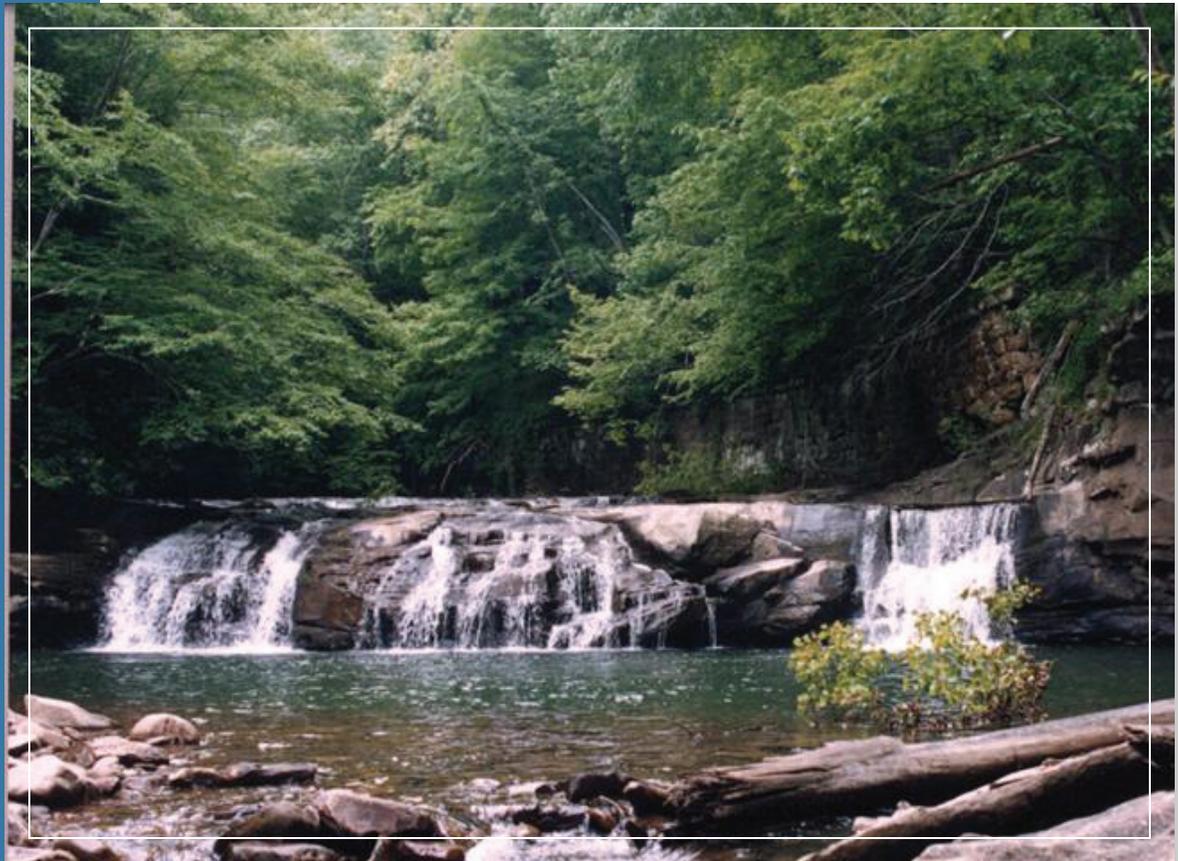
## Wild and Scenic Rivers System

In 1968, Congress passed the Wild and Scenic Rivers Act. The act “declared to be the policy of the United States that certain selected rivers of the Nation, which with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.” [16 US Code Chapter 28]

The National Park Service is one of the four federal land-managing agencies with wild and scenic river management responsibilities. Wild and scenic rivers administered by the Secretary of the Interior through the National Park Service may flow wholly or partly within the boundaries of existing national park system units, or may constitute new and separate units of the national park system. These congressionally designated wild and scenic rivers are part of both the national park system and the national wild and scenic rivers system (16 USC 1281(c)). Other congressionally designated rivers, such as the Bluestone National Scenic River, are administered by the National Park Service in partnership with state and nongovernmental organizations.

For a river to qualify, a river or river segment must be in a free-flowing condition and must be deemed to have one or more “outstandingly remarkable value.” Under the Wild and Scenic Rivers Act, designated rivers are classified as wild, scenic, or recreational. The classifications primarily relate to the degree of development along the river. Regardless of the classification, each designated river in the national system is to be managed in a way that protects and enhances the values that prompted its designation. The last 10.5 miles of the Bluestone River qualified as a national scenic river as defined below:

*“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.*



## Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park’s purpose, significance, fundamental resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park. The process of developing a foundation document begins with gathering and integrating information about the park. Next, this information is refined and focused to determine what the most important attributes of the park are. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park atlas for Bluestone National Scenic River can be accessed online at: <http://insideparkatlas.nps.gov/>.



## Part 1: Core Components

The core components of a foundation document include a brief description of the park, park purpose, significance statements, fundamental resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

### Brief Description of the Park

Bluestone National Scenic River is a unit of the national park system, and is also a part of the national wild and scenic rivers system. The national wild and scenic rivers system protects rivers throughout the country that are free-flowing and possess “outstandingly remarkable” scenic, natural, cultural, geological, and recreational values. The headwaters of the Bluestone River begin at an elevation of 3,500 feet on East River Mountain near Bluefield, Virginia, and flow for 77 miles to Bluestone Lake near Hinton, West Virginia, at 1,409 feet. The lower 10.5 miles of the Bluestone River, cutting through an impressive and biologically diverse gorge, has been designated as Bluestone National Scenic River, and is bordered by two state parks and a public fishing area. Pipestem Resort State Park provides a year-round resort type facility and Bluestone State Park offers a variety of recreational opportunities. The responsibility of protecting Bluestone National Scenic River is shared between the National Park Service, West Virginia State Parks, and the West Virginia Division of Natural Resources. A section of Bluestone National Scenic River lies within the boundaries of Pipestem Resort State Park, and the remaining portion is also a West Virginia Wildlife Management Area. Bluestone Dam, located on the New River, impounds 2.4 miles of the Bluestone River.

The Bluestone River, named for the deep blue limestone streambed of its upper reaches in Virginia, has created a gorge 1,000 feet deep. The rugged and ancient gorge is a richly diverse and scenic area of the southern Appalachian Mountains. More than 700 species of plants grow in several diverse Appalachian forest habitat types along the river. The park provides excellent opportunities for watching many mammal, bird, amphibian, reptile, and insect species. The riverbed habitat is alive with a carpet of macro-invertebrate aquatic species, supports healthy populations of many warm water game and nongame fishes, and is classified as a “high quality warm water stream” by the state of West Virginia.

The bottomland within the gorge of the Bluestone was first used by American Indians. In the late 1700s the Lilly, Meadow, and Farley families built homesteads along the river. Historical records from the 18th century indicate that the route up the Bluestone River and Little Bluestone River was an American Indian trail that later became the Giles, Fayette, and Kanawha Turnpike that passes through modern-day Beckley and Fayetteville, West Virginia. At the confluence of the Bluestone and Little Bluestone Rivers, the community of Lilly once flourished. The Bluestone Turnpike, a riverbank road used by those who farmed and timbered the area until the 1940s, is used today by visitors to the park. Time spent in thoughtful solitude along this little mountain river offers the visitor a vestige of primitive America. The Bluestone Turnpike Trail, which follows the river for nine miles from the Mountain Creek Lodge (at the base of the tram at Pipestem Resort State Park) to Bluestone State Park, is open for hiking, biking, and horses. Opportunities for canoeing and kayaking are usually limited to spring and early summer, depending on water levels.

## Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Bluestone National Scenic River was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established when the enabling legislation adopted by Congress was signed into law on October 26, 1988 (see appendix A for enabling legislation and legislative acts). The purpose statement lays the foundation for understanding what is most important about the park.

*The purpose of the BLUESTONE NATIONAL SCENIC RIVER is to preserve the free-flowing waters of the Bluestone River, the primitive character and outstanding scenic qualities of the gorge, and a diverse assemblage of natural resources endemic to the Central Appalachian Mountains, while providing for the benefit and enjoyment of present and future generations.*



## Park Significance

Significance statements express why a park's resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of Bluestone National Scenic River, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

The following significance statements have been identified for Bluestone National Scenic River. (Please note that the sequence of the statements does not reflect the level of significance.)

1. As one of the few undammed rivers within the eastern United States, the Bluestone National Scenic River exhibits a natural hydrology that supports a diversity of aquatic and riparian habitats and biological communities due to its variable and seasonal flow regime.
2. The Bluestone gorge is characterized by an expansive continuum of unfragmented river-to-rim forest. The forest surrounding the Bluestone National Scenic River contributes to the larger, globally significant forest system that also encompasses the New River Gorge National River and Gauley River National Recreation Area. This type of unfragmented forest system is uncommon throughout much of the eastern United States, and supports rare and federally threatened species, as well as 22 riparian and upland plant communities, 8 of which are globally rare.
3. The Bluestone National Scenic River contains a state wildlife management area that features an abundant variety of fish, wildlife, and game species, providing important public opportunities for traditional recreation uses such as hunting, fishing, and trapping in a rich scenic landscape that is largely primitive and undeveloped.
4. The geography of the Bluestone River Gorge, with its flat bottomlands, provided an easily navigable landscape that was one of the oldest corridors that American Indians and early settlers used to travel through the Appalachian Mountains, affording linkages to the Tennessee and Ohio Rivers.



## Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance. Fundamental resources and values are closely related to a park's legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Bluestone National Scenic River:

- Biological Diversity.** From river to rim, the unfragmented forest along the Bluestone National Scenic River provides refuge to more than 106 bird species, 786 plant species, and 39 rare plants including the federally threatened Virginia spiraea. This forested mosaic also provides a critical north-south migration route for both plant and animal species. Mammals, amphibians, reptiles, and insects thrive in this rich forest habitat, and the riverbed habitat is alive with macro-invertebrate aquatic species, and supports healthy populations of many warm water game and nongame fishes.
- The Bluestone River.** The Bluestone National Scenic River is a 10.5-mile section of the Bluestone River in southern West Virginia created in 1988 under the Wild and Scenic Rivers Act. This designation allows for the protection of its outstandingly remarkable values, the free-flowing condition of this undammed river, and its water quality. Outstandingly remarkable values for the Bluestone River include scenic, recreational, and fish and wildlife values. The Bluestone River is classified as a high quality warm water stream by the state of West Virginia, contributing to a healthy ecosystem with rare and diverse species. The state of West Virginia also designated sections of the Bluestone River as an Outstanding National Resource Water, meaning its condition shall not be allowed to degrade and should be improved where necessary.
- Historic Travel Corridor and Associated Cultural Resources.** Historic travel routes fostered American Indian and historic agricultural settlement along the Bluestone National Scenic River. Historical records from the 18th century indicate that modern-day routes along the Bluestone River and Little Bluestone River were an American Indian trail. The primary travel route through the area, the Bluestone Turnpike, connected to a network of trails used to navigate through the Central Appalachian range including the Cumberland Trail Turnpike and the Great Warrior Path. This travel corridor has a rich history of use, including the story of Mary Draper Ingles, providing a glimpse into early Appalachian history. Once located beside the Bluestone River, the town of Lilly was established in 1798 and provided supplies and materials to the surrounding agricultural communities that developed along these travel corridors.
- Recreation Opportunities.** The Bluestone National Scenic River is managed in partnership with the State of West Virginia to protect fish and wildlife values, while enhancing opportunities for traditional and modern recreational activities such as hunting, fishing, trapping, boating, hiking, biking, horseback riding, and bird watching, among others.
- Undeveloped Primitive Character.** The undeveloped primitive character of the Bluestone River allows visitors ample opportunities to experience a peaceful natural setting and to enjoy natural soundscapes and dark night skies. The river's rugged gorge and its mosaic of riparian and forest habitats provide outstanding scenery from within the Bluestone gorge. Low levels of visitation contribute to a sense of solitude, allowing visitors a glimpse into the past to imagine what early travelers may have seen. Today, this same meandering river traverses a backdrop of diverse riparian vegetation within the shadow of steep forested slopes and sandstone cliffs, just as it appeared 100 years ago.

## Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all park significance statements and fundamental resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by park resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. Interpretive themes go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. These themes help explain why a park story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park.

The following interpretive themes have been identified for Bluestone National Scenic River:

- Diverse and unfragmented forests, extremes in topography and elevation, and the wild, free-flowing waters of the Bluestone River provide for a great diversity of plant and animal species.
- The Bluestone corridor has provided a pathway that connects people and cultures through place and time.
- The Bluestone River Gorge provides a refuge for plants and animals displaced from warmer and lower elevation ecosystems, and will become more vital as global climates change.
- The isolated, primitive character of the Bluestone River Gorge allows people to experience scenic landscapes that have been relatively untouched through time, providing opportunities for solitude and reflection while affording a glimpse into the geologic and historic past.



## Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

### Special Mandates and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park and facilitate working relationships with other organizations. They are an essential component of managing and planning for Bluestone National Scenic River.

#### Special Mandates

##### 1988 Enabling Legislation for the Bluestone (PL 100-534 102 Stat 2699-2708)

- Includes enabling legislation for Gauley River National Recreation Area and Bluestone National Scenic River. Provides findings and purpose for New River Gorge National River, Gauley River National Recreation Area, and the Bluestone National Scenic River. Also includes promotion of recreation in southern West Virginia, state regulation of commercial watercraft services on the New River, Gauley River, and Bluestone River, public awareness of wild/scenic designation on other rivers, and consolidation of management offices for the three parks.

##### 1988 Designation of the Lower Bluestone as a Wild and Scenic River (PL 100-534 Sec 301 102 Stat 2706)

- Transferred administrative jurisdiction of lands from US Army Corps of Engineers to the Department of the Interior. Enabling legislation states: “Nothing in this Act shall affect the management by the State of hunting and fishing within the segment designated under this paragraph. . . of other wildlife activities in the Bluestone Public Hunting and Fishing Area to the extent permitted in the lease agreement.”

##### 1978 Enabling Legislation for New River Gorge National River (PL 95-625 92 Sec 1108 Stat 92)

- The study of the three principal tributaries of the New River, the Bluestone, the Gauley, and the Greenbrier, was authorized in this legislation to determine their eligibility within the Wild and Scenic River designation.

##### 1988 General Provisions – Special Provisions (PL 100-534 Section 402 Stat 2707)

- Required that the park enter into a cooperative agreement with the State of West Virginia providing for the State’s regulation, in accordance with state law, of persons providing commercial recreational watercraft services on units of the National Park Service and components of the national wild and scenic rivers system subject to this act. This is interpreted to say that the state has regulatory authority over the commercial use of the river.

For more information about the existing administrative commitments for Bluestone National Scenic River, please see appendix C.

## Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the park’s fundamental resources and values, and develop a full assessment of the park’s planning and data needs. The assessment of planning and data needs section presents planning issues, the planning projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including GIS data.

There are three sections in the assessment of planning and data needs:

1. analysis of fundamental resources and values
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental resources and values and identification of key issues leads up to and supports the identification of planning and data collection needs.

### Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value.



Fundamental Resource or Value	Biological Diversity
<b>Related Significance Statements</b>	Significance statements 1, 2, and 3.
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The Bluestone gorge represents an unfragmented forest ecosystem and provides ideal habitat for birds that rely on interior forest breeding habitat.</li> <li>• The gorge consists of a largely intact forest system from river to rim.</li> <li>• Unrestricted flows create natural and seasonal flow variability that promotes a variety of riverine edge habitat.</li> <li>• Lack of noise and artificial light contribute to the national scenic river’s biological diversity.</li> <li>• The connection to Bluestone Lake provides a refuge for fish.</li> <li>• West Virginia Division of Natural Resources is responsible for fish stocking of mostly game species (primarily trout).</li> <li>• Forests are generally healthy; however, they have been impacted by the lack of fire, high deer populations, invasive species (forest pests and plants), and air pollution.</li> <li>• West Virginia Division of Natural Resources manages the area to promote game species for hunting as part of the Bluestone Wildlife Management Area.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Forest pests continue to impact forest health.</li> <li>• The bald eagle populations are increasing in the area.</li> <li>• Low, stable visitation has resulted in minimal visitor impacts at limited access points.</li> </ul>
<b>Threats</b>	<ul style="list-style-type: none"> <li>• Agriculture on adjacent lands and/or development upstream continues to impact water quality upstream.</li> <li>• Invasive plants threaten the integrity of the riparian zone.</li> <li>• A proposed zip line over Pipestem Resort State Park (as of 2013) would be visible from the national scenic river and could result in increased disturbance to wildlife. Implementation is still in question as of 2016.</li> <li>• Increasing oil and gas development within the region poses a threat to park air quality and biodiversity. New drilling technologies such as horizontal drilling and hydraulic fracturing, and other shale gas development, have increased exponentially within the region, including within West Virginia. Equipment associated with oil and gas development such as drill rigs, fracturing engines, valves, seals, compressors, etc., all emit air pollutants, and in regions of extensive development, can contribute to air quality impacts.</li> <li>• The nonnative fish in the river pose a potential threat to native fish and other native aquatic fauna.</li> <li>• Increase in mean annual temperature and precipitation projected for the region due to climate change could impact species composition and biodiversity and increase the spread of invasive species.</li> <li>• The river’s ecosystems are very sensitive to acidification effects from the deposition of atmospheric sulfur and nitrogen. Acidification of soils and streams can impact ecosystem health by changing community structure, biodiversity, reproduction, and decomposition. Plants sensitive to the effects of acidification in the park include sugar maple trees.</li> <li>• Atmospheric nitrogen deposition levels in the park are above critical loads for lichen and forest vegetation types, suggesting they are at risk for harmful effects. Wetland areas are sensitive to nutrient enrichment effects of excess nitrogen from deposition and runoff, which can help invasive plant species grow faster and out-compete native vegetation adapted to lower nitrogen conditions.</li> <li>• Ground-level ozone sometimes reaches levels that can cause injury to ozone-sensitive plants. There are many ozone-sensitive plants in the park including American sycamore, tulip poplar, red maple, and cut-leaf coneflower.</li> </ul>

Fundamental Resource or Value	Biological Diversity
<p><b>Opportunities</b></p>	<ul style="list-style-type: none"> <li>• Collaborate with West Virginia Division of Natural Resources to adopt proactive management strategies that are compatible with NPS management policies; establish formal agreement.</li> <li>• Expand partnership opportunities with volunteers to accomplish natural resource management goals.</li> <li>• Partner with universities to assist with research and natural resource management.</li> <li>• Collaborate with West Virginia Division of Natural Resources to promote NPS interpretive and resource stewardship goals.</li> <li>• Expand interpretative and educational tools to communicate the connections between Bluestone River and biological diversity, air quality/pollution, scenic views, night sky, recreation, human health, and climate change.</li> </ul>
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• Bluestone National Scenic River: Species full list with details. Content downloaded from IRMA species list (2015).</li> <li>• “Forest Vulnerability Project Brief: Climate, Trees, Pests, and Weeds: Change, Uncertainty, and Biotic Stressors in Eastern National Park Forests” (2015).</li> <li>• “Climate Change Resource Brief: Recent Climate Change Exposure of Bluestone National Scenic River” (2014).</li> <li>• “Integrity of Benthic Macroinvertebrate Communities in Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Eastern Rivers and Mountains Network Summary Report” (2010).</li> <li>• “New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River – West Virginia: Water Resources Management Plan” (2002).</li> <li>• “Vegetation Classification and Mapping of Bluestone National Scenic River, West Virginia: Technical Report NPS/NER/NRTR—2008/106” (2008).</li> <li>• “Fishes of the Bluestone National Scenic River: Natural Resources Technical Report NPS/NER/NRTR—2006/049” (2006).</li> <li>• “Avian Point Count Surveys in the Bluestone National Scenic River Area” (2000).</li> <li>• “Rare Species Survey of Bluestone Scenic River” (1992).</li> <li>• NPS Inventory and Monitoring Program and Eastern Rivers and Mountains Network datasets and reports.</li> <li>• United States Geological Survey flow gage data.</li> <li>• Floristics inventory and vegetation characterization and mapping.</li> <li>• Ongoing regional air quality monitoring for visibility, ozone, and atmospheric deposition.</li> <li>• Vegetation and invasive species management plan.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Rare fish survey.</li> <li>• Great hellbender survey.</li> <li>• Faunal survey.</li> <li>• GIS map of rare plants (data already available).</li> <li>• Natural resource condition assessment.</li> <li>• Property boundary surveys.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Resource stewardship strategy.</li> <li>• Planning for adaptation to climate change.</li> </ul>

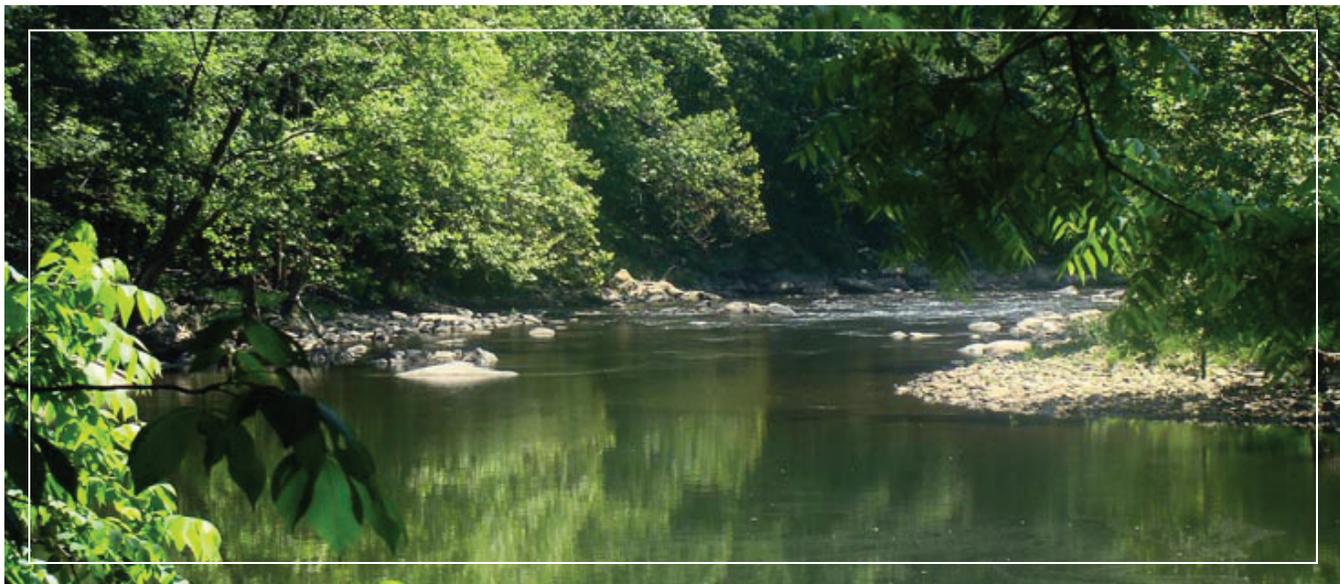
Fundamental Resource or Value	Biological Diversity
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Wild and Scenic Rivers Act (1968)</li> <li>• Endangered Species Act of 1973, as amended</li> <li>• National Invasive Species Act</li> <li>• Lacey Act, as amended</li> <li>• Federal Noxious Weed Act of 1974, as amended</li> <li>• Clean Water Act</li> <li>• Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts</li> <li>• Executive Order 13112, “Invasive Species”</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources” states that “Each bureau and office of the Department must consider and analyze potential climate change impacts when undertaking long-range planning exercises”</li> <li>• Executive Order 13514, “Federal Leadership in Environmental, Energy, and Economic Performance.” The goal of the order is to establish an integrated strategy towards sustainability in the federal government and to make reduction of greenhouse gas emissions a priority</li> <li>• Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management” instructs federal agencies to conduct their environmental, transportation, and energy-related activities in a sustainable manner</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§1.6) “Cooperative Conservation Beyond Park Boundaries”</li> <li>• NPS Management Policies 2006 (§4.1) “General Management Concepts”</li> <li>• NPS Management Policies 2006 (§4.1.4) “Partnerships”</li> <li>• NPS Management Policies 2006 (§4.4.1) “General Principles for Managing Biological Resources”</li> <li>• NPS Management Policies 2006 (§4.7.2) “Weather and Climate”</li> <li>• NPS Natural Resource Management Reference Manual 77</li> </ul>





<b>Fundamental Resource or Value</b>	<b>The Bluestone River</b>
<b>Related Significance Statements</b>	Significance statements 1 and 3.
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Water quality within the park is generally good. There are upstream water quality issues including polychlorinated biphenyls (PCBs), mercury, biological conditions not allowed, and fecal coliform bacteria.</li> <li>• There are no developments along the river, and there is a pristine viewshed from the river.</li> <li>• The area is relatively inaccessible to the public due to limited road access.</li> <li>• Fish and wildlife habitat is in good condition.</li> <li>• Concurrent management of the Bluestone River with the State of West Virginia.</li> <li>• State access road is in poor condition.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• The National Park Service has improved its relationship with the West Virginia Division of Natural Resources.</li> <li>• The National Park Service works with partners (Pipestem Resort State Park and the US Army Corp of Engineers) for water safety.</li> </ul>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Gas lines are currently impacting the scenic viewshed.</li> <li>• Changes in lake levels may impact river levels.</li> <li>• An increase in mean annual temperature and precipitation, increases in storm frequency/intensity, and increases in extreme heat events (&gt; 95°F) projected for the region due to climate change could impact hydrology and water quality of the Bluestone River.</li> <li>• There is a proposed zip line across Pipestem Resort State Park and it would be visible from the trail and Bluestone National Scenic River.</li> <li>• Noise impacts on the acoustic environment from surrounding uses and from internal uses (e.g., vehicles, grounds care, hunting, tram).</li> <li>• Continued poaching.</li> <li>• New gas pipeline could introduce other intrusions to the park such as compression plants impacting night skies, the acoustic environment, etc.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Expansion of recreational opportunities.</li> <li>• Work in unison with the West Virginia Division of Natural Resources to exchange data.</li> <li>• Purchase additional land within the boundary for resource protection.</li> </ul>
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• “Baseline Water Quality Data Inventory and Analysis: Bluestone National Scenic River” (1995).</li> <li>• “Water Quality Monitoring Program 1998–2000, New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area.”</li> <li>• “Fishes of the Bluestone National Scenic River: Natural Resources Technical Report NPS/NER/NRTR—2006/049” (2006).</li> <li>• “New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River – West Virginia: Water Resources Management Plan” (2002).</li> <li>• “Final Wild and Scenic River Study Bluestone River, West Virginia” (1983).</li> <li>• “Comprehensive Survey of the Bluestone River Basin (1978).</li> <li>• Water quality monitoring program reports.</li> </ul>

Fundamental Resource or Value	The Bluestone River
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• Right-of-way permit / easement for gas line – DOI. Research is needed to determine what the National Park Service allowed under each deed.</li> <li>• Stream flow and sediment load study.</li> <li>• Water quality monitoring data (continued collection).</li> <li>• Climate change monitoring data.</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• Wayside plan.</li> <li>• Sign plan.</li> <li>• Update agreement with West Virginia Division of Natural Resources on management of the Bluestone National Scenic River.</li> <li>• Climate change adaptation plan.</li> <li>• Comprehensive river management plan.</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Wild and Scenic Rivers Act (1968)</li> <li>• Clean Water Act</li> <li>• Executive Order 11514, “Protection and Enhancement of Environmental Quality”</li> <li>• Executive Order 11988, “Floodplain Management”</li> <li>• Executive Order 12088, “Federal Compliance with Pollution Control Standards”</li> <li>• National Flood Insurance Program</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS <i>Management Policies 2006</i> and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§4.6.1) “Protection of Surface Waters and Groundwaters”</li> <li>• NPS <i>Management Policies 2006</i> (§4.6.2) “Water Rights”</li> <li>• NPS <i>Management Policies 2006</i> (§4.6.4) “Floodplains”</li> <li>• Director’s Order 77-2: <i>Floodplain Management</i></li> <li>• Special Directive 93-4 “Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance” (1993)</li> </ul>

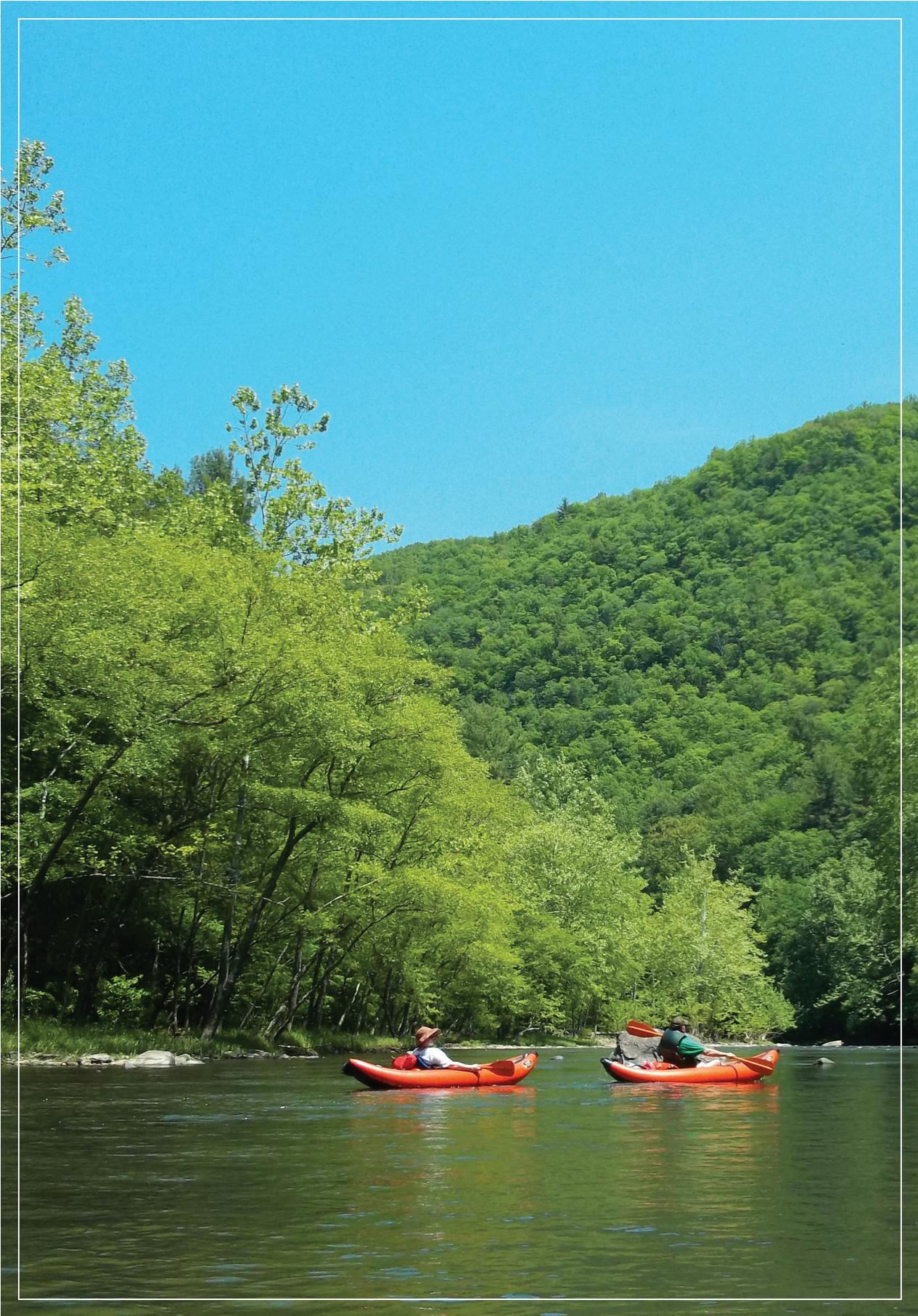




Fundamental Resource or Value	Historic Travel Corridor and Associated Cultural Resources
Related Significance Statements	Significance statement 4.
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Bluestone Turnpike Trail is in good condition.</li> <li>• The town of Lilly is primarily ruins (including school and church); the archeological resources are in good condition.</li> <li>• The access roadway is in variable condition and frequent washouts occur, requiring constant repair.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• None identified.</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Pool elevation of the Bluestone Dam may flood portions of the trail and town of Lilly.</li> <li>• Lease of low bottom land to the state for food plots may disturb potential archeological resources.</li> <li>• Development is encroaching above the rim of the valley.</li> <li>• Gas line repairs could impact known and potential archeological resources and Bluestone Turnpike Trail (portions used by gas company to access gas line).</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Incorporate the American Indian use and travel routes into interpretive material.</li> <li>• Coordination or partnerships with state to coordinate resource protection, interpretive/ educational programming, and access.</li> <li>• Incorporate other regional interpretive stories (Mary Draper Ingles, an American pioneer and early settler of western Virginia; farmstead settlements; town of Lilly including cemeteries, ruins, and archeology).</li> </ul>
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> <li>• Archeological Sites Management and Information System database.</li> <li>• Archeological studies: Marshall and Fuerst (1985); Stathakis (2001); Trader (2003).</li> </ul>
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• Archeological overview and assessment.</li> <li>• Archeological survey and cultural GIS data.</li> <li>• Historic resource study.</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• Long-range interpretive plan.</li> <li>• Ethnographic overview and assessment.</li> <li>• Wayside plan.</li> <li>• Sign plan.</li> </ul>

Fundamental Resource or Value	Historic Travel Corridor and Associated Cultural Resources
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• The Antiquities Act of 1906</li> <li>• Historic Sites, Buildings, and Antiquities Act of 1935</li> <li>• National Historic Preservation Act of 1966, as amended (54 USC §300101 et seq.)</li> <li>• Archeological and Historic Preservation Act of 1974</li> <li>• American Indian Religious Freedom Act of 1978</li> <li>• Archaeological Resources Protection Act of 1979</li> <li>• Museum Act (16 USC 18f through 18f-3)</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• Executive Order 13007, "Indian Sacred Sites"</li> <li>• "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79)</li> <li>• "Protection of Historic Properties" (36 CFR 800)</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (chapter 5) "Cultural Resource Management"</li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 28A: <i>Archeology</i></li> <li>• <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i></li> </ul>





Fundamental Resource or Value	Recreation Opportunities
Related Significance Statements	Significance statement 3.
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• This corridor is managed by West Virginia State Parks, the West Virginia Division of Natural Resources, and the National Park Service. The three different agencies have different missions and management purposes, and the agencies are managing the river for different purposes and under different rules. This creates challenges for managing recreation opportunities.</li> <li>• The Division of Natural Resources maintains the area as a wildlife management area for hunting. However, one-third of the area is managed by the state parks that do not allow hunting, and the National Park Service might prefer to develop camping opportunities there.</li> <li>• Most visitors do not know that this area is a unit of the national park system. There are three parks in the area with the word Bluestone in the name, so this causes confusion to the general public.</li> <li>• Scenic views are excellent and are enjoyed by a variety of users such as hunters, hikers, birdwatchers, photographers, boaters, anglers, and state park visitors using the aerial tramway and lodging.</li> <li>• There is a parking lot and a porta potty provided by the National Park Service.</li> <li>• Water quality is adequate to support fishing and boating.</li> <li>• The river is usually not at a high enough level for boating. It is a free-flowing river, so this is a natural pattern.</li> <li>• There is limited access to the river due to the park’s remoteness. There are only three access points: the road to Lilly, hiking access through Bluestone State Park, and access from Pipestone State Park via the tram. Most NPS-led interpretive programs begin at Pipestem Resort State Park and accompany users down the tram and then hike along the trail. Hikers, hunters, fishermen, and horseback riders are the primary user groups.</li> <li>• Trails are difficult to maintain because of limited access.</li> <li>• The soundscapes and dark night skies are in good condition.</li> <li>• All visitor use is day use.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Use levels are not changing noticeably.</li> <li>• The most visited times are on youth hunt day and free hunting day.</li> <li>• Locals and old timers are starting to look for additional places to hunt, as private lands become harder to access.</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Pipestem Resort State Park is planning to put a zip line across the Bluestone River Gorge that could impact hunting during the hunting season as well as opportunities for peace and solitude.</li> <li>• The expired management agreement with the West Virginia Division of Natural Resources at the wildlife management area threatens consistent management of the area.</li> <li>• There is potential for user group conflicts if use changes over time.</li> <li>• Water quality is threatened from upstream residential, municipal, and industrial sources outside of the park.</li> <li>• There is a West Virginia statewide fish advisory that includes consumption guidelines due to mercury and polychlorinated biphenyls for fish caught in the Bluestone River within the park.</li> <li>• Increases in mean annual temperature and precipitation, increases in storm frequency/intensity, and increases in extreme heat events (&gt; 95°F) projected for the region due to climate change could impact recreational opportunities.</li> </ul>

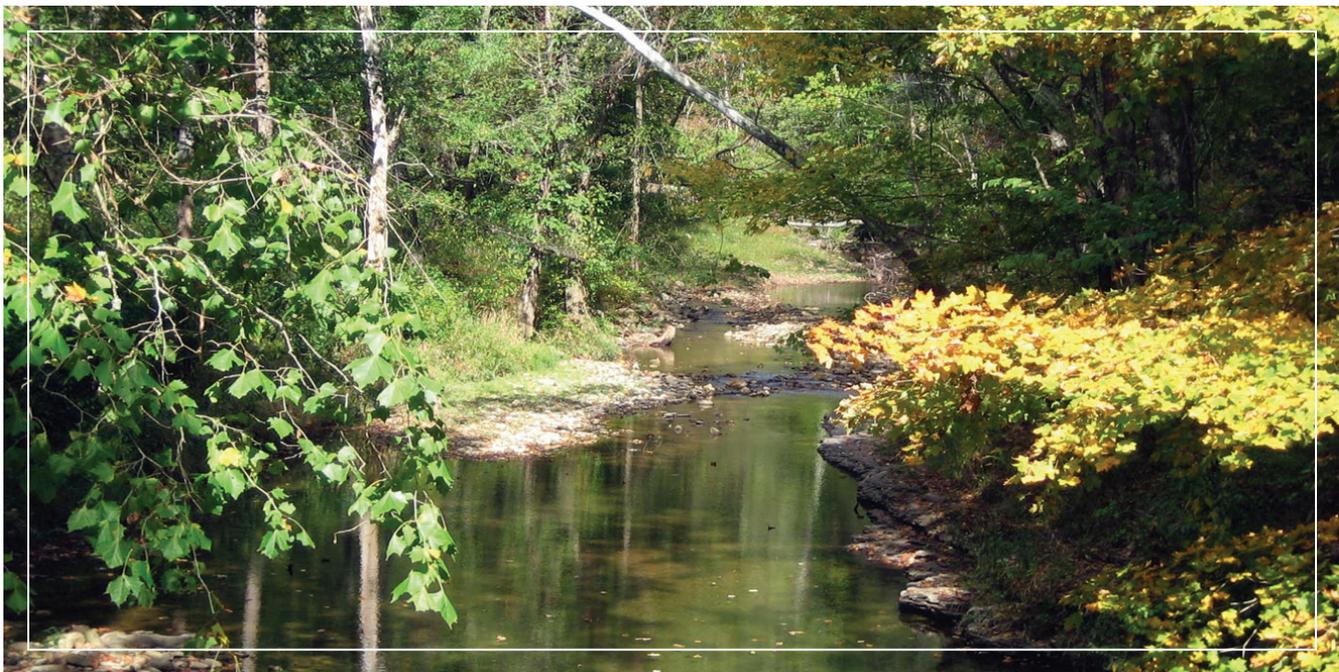
Fundamental Resource or Value	Recreation Opportunities
<p><b>Opportunities</b></p>	<ul style="list-style-type: none"> <li>• The interpretive team would like to get creative and think of ways to interpret the park to local residents, and encourage locals to visit the park.</li> <li>• There are boundless opportunities to interpret the importance of the Bluestone National Scenic River.</li> <li>• There is an opportunity to take youth involved in ranger programs down to the Bluestone River.</li> <li>• Develop educational programming that could be conducted in the Bluestone National Scenic River.</li> <li>• There is an opportunity to have better partnerships with the state parks. The National Park Service has done some cooperative work with Pipestem Resort State Park, but has not yet had the opportunity to work with Bluestone State Park.</li> </ul>
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• No visitor use data exist for the national scenic river. No traffic count data are available.</li> <li>• The state park maintains visitor use data, and everyone who rides the tram down probably enters the park along the river without even knowing it.</li> <li>• “Bluestone National Scenic River: How might future warming alter visitation?” (Fischelli et al., 2015).</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Survey of locals to understand their preferences for use and recreational opportunities.</li> <li>• Boundary survey.</li> <li>• Expansion of recreation opportunity study.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Long-range interpretive plan.</li> <li>• Comprehensive river management plan.</li> <li>• Camping feasibility study and plan.</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Wild and Scenic Rivers Act (1968)</li> <li>• Americans with Disabilities Act of 1990</li> <li>• Architectural Barriers Act of 1968</li> <li>• Architectural Barriers Act Accessibility Guidelines</li> <li>• Rehabilitation Act of 1973</li> <li>• National Park Service Concessions Management Improvement Act of 1998</li> <li>• “Concession Contracts” (36 CFR 51)</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (chapter 7) “Interpretation and Education”</li> <li>• NPS Management Policies 2006 (chapter 8) “Use of the Parks”</li> <li>• NPS Management Policies 2006 (chapter 9) “Park Facilities”</li> <li>• NPS Management Policies 2006 (chapter 10) “Commercial Visitor Services”</li> <li>• Director’s Order 6: <i>Interpretation and Education</i></li> <li>• Director’s Order 42: <i>Accessibility for Visitors with Disabilities in NPS Programs, Facilities, and Services</i></li> <li>• Director’s Order 48A: <i>Concession Management</i></li> <li>• Director’s Order 48B: <i>Commercial Use Authorizations</i></li> <li>• NPS Transportation Planning Guidebook</li> </ul>





<b>Fundamental Resource or Value</b>	<b>Undeveloped Primitive Character</b>
<b>Related Significance Statements</b>	Significance statement 1, 2, 3, and 4.
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The river corridor is almost entirely undeveloped and primitive except for Pipestem Resort State Park's development, including the tram.</li> <li>• Large expanses of unfragmented river to rim forest dominate the landscape at Bluestone National Scenic River, and are only interrupted by three wildlife fields maintained by the West Virginia Division of Natural Resources, a pipeline, and the aerial tram and lodge at Pipestem Resort State Park.</li> <li>• The acoustic environment remains largely unaffected by noise. Noise sources such as roads and towns are located far enough from the park boundary that they have little influence. There is a prominence of natural sounds, such as running water and the calls of birds, and amphibians.</li> <li>• Scenic views are periodically obscured by pollution-caused haze.</li> <li>• The natural lightscape of the park remains mostly free of light pollution. Along the river, portions of the Milky Way are typically visible but may have lost some detail and may not be visible as a complete band.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• The difficulty of access has enabled the undeveloped primitive character to remain stable over time.</li> </ul>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• If hydroelectric power were to be harnessed at the dam below the river, this could flood the Bluestone River and would raise the water by 70 feet (for short periods of time during extreme floods).</li> <li>• If the West Virginia Division of Natural Resources were to change its management practices, the natural resources of the area could be affected.</li> <li>• The water quality is threatened by outside sources, which could impact the primitive character of the area.</li> <li>• Increases in artificial light would impact the night skies.</li> <li>• Gas lines are currently impacting the scenic viewshed.</li> <li>• A proposed zip line over Pipestem Resort State Park would be visible from the national scenic river.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• There is an opportunity to protect the current primitive character because it is not spoiled, and therefore the National Park Service can move forward with foresight to protect it into the future.</li> <li>• Work more closely with the state parks and West Virginia Division of Natural Resources to prevent impacts into the future.</li> <li>• There is an opportunity for the National Park Service to promote leave-no-trace ethics, and to educate park users about taking care of the resources.</li> </ul>
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• "Baseline Water Quality Data Inventory and Analysis: Bluestone National Scenic River" (1995).</li> <li>• Water quality monitoring program reports.</li> </ul>

Fundamental Resource or Value	Undeveloped Primitive Character
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• Survey of locals to understand their preferences for use at the Bluestone National Scenic River.</li> <li>• Boundary survey.</li> <li>• Updated user counts.</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• Long-range interpretive plan.</li> <li>• Trail plan.</li> <li>• Camping feasibility study and plan.</li> <li>• Comprehensive river management plan.</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Wild and Scenic Rivers Act (1968)</li> <li>• Clean Water Act</li> <li>• Executive Order 11514, "Protection and Enhancement of Environmental Quality"</li> <li>• Executive Order 11988, "Floodplain Management"</li> <li>• Executive Order 12088, "Federal Compliance with Pollution Control Standards"</li> <li>• National Flood Insurance Program</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§4.3.4) "National Wild and Scenic Rivers System"</li> <li>• NPS Management Policies 2006 (§1.4.6) "Park Resources and Values"</li> <li>• NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS Management Policies 2006 (§4.9) "Soundscape Management"</li> <li>• NPS Management Policies 2006 (§4.10) "Lightscape Management"</li> <li>• Director's Order 47: <i>Soundscape Preservation and Noise Management</i></li> <li>• Director's Order 77-2: <i>Floodplain Management</i></li> <li>• Special Directive 93-4 "Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance" (1993)</li> <li>• NPS Natural Resource Management Reference Manual 77</li> </ul>



## Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental resources and values. For example, a key issue may pertain to the potential for a fundamental resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but which still affect them indirectly. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Bluestone National Scenic River and the associated planning and data needs to address them:

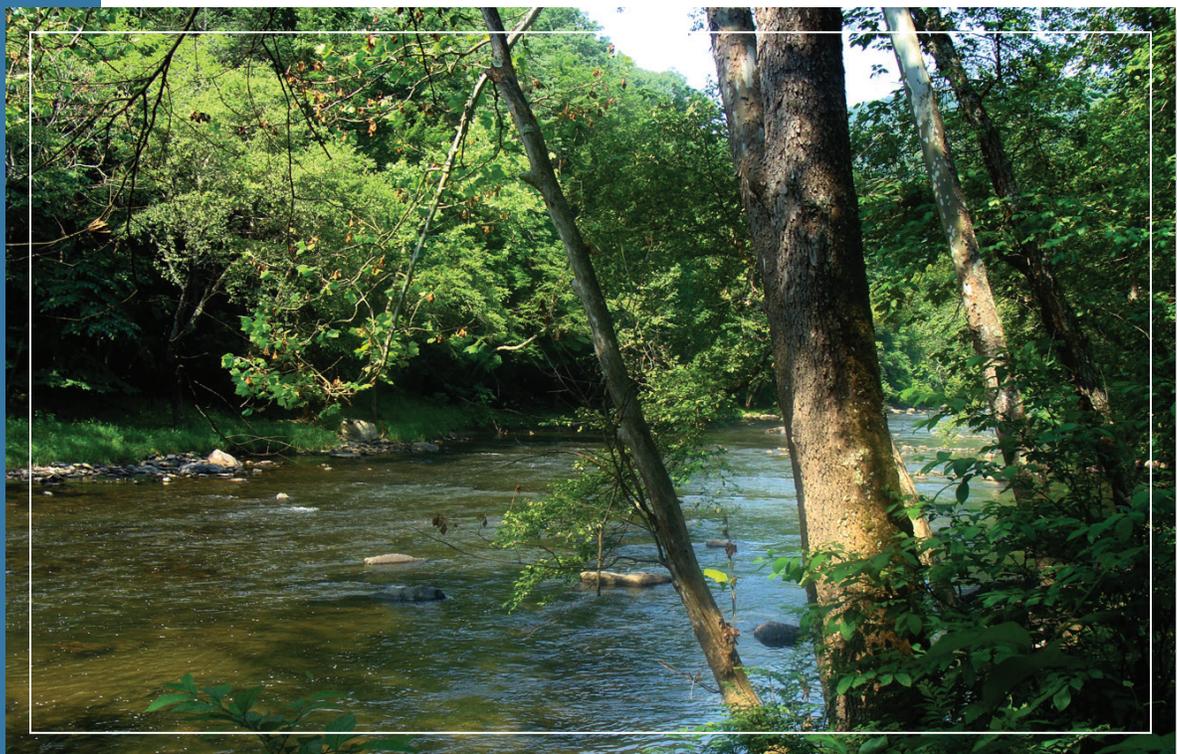
- **Improving Relations with West Virginia Division of Natural Resources.** The Bluestone National Scenic River’s enabling legislation required that the National Park Service enter into a lease agreement with the West Virginia Division of Natural Resources for the division’s management of the area for public hunting and fishing. This lease agreement has since expired and needs to be renewed. Complicating the issue is the fact that each agency has different goals for management of the lands within the National Park Service boundary. Historically, consultation and coordination between the National Park Service and the Division of Natural Resources has been tenuous. Effectively managing the area as a national scenic river, managing invasive plants, maintaining water quality, and protecting the river’s outstandingly remarkable values will require close coordination with the West Virginia Division of Natural Resources in the future. In addition, Pipestem Resort State Park, which abuts the southeastern boundary of the park, is considering developing a zip line across the river, which may adversely affect some park resources.
  - *Planning Needs:* National Park Service and West Virginia Division of Natural Resources agreement for the management of the Bluestone River; comprehensive river management plan
  - *Data Needs:* Updated user counts; visitor survey; rare fish survey
  
- **Lack of NPS Identity.** Most people are unaware that the Bluestone National Scenic River is part of the national park system, or that the Bluestone River is a nationally designated scenic river. Two contributing factors include the Bluestone National Scenic River’s remote access and the fact that the neighboring wildlife management area and state park share the “Bluestone” name. In addition, most park visitors access the Bluestone National Scenic River through state lands, as take-outs are often on these lands, and much of the interpretation the National Park Service provides is conducted on these state lands. Additional interpretive waysides within the Bluestone National Scenic River would be helpful. The National Park Service has a stronger collaborative relationship with Pipestem Resort State Park than with Bluestone State Park, and there is a desire to improve communication and collaboration with Bluestone State Park.
  - *Planning Needs:* Sign plan; long-range interpretive plan; communications plan; tourism plan
  - *Data Needs:* Sign inventory

- **Climate Change.** Increases in mean annual temperature (+3.8°F to 4.9°F by 2050), slight increases in mean annual precipitation (+6% by 2050), increases in extreme heat events (> 95° F), and increases in storm frequency and intensity are projected for the region due to climate change. These changes will have far-reaching impacts on the Bluestone National Scenic River and aquatic environments. Impacts on terrestrial habitats are also expected. Changes in species composition and wildfire frequency, and increases in invasive species are possible, along with impacts (e.g., flood and erosion events) on recreational opportunities and park assets within the national scenic riverway. Adapting to the impacts of climate change will require park managers to continue to learn from the past, but be forward-looking, anticipating plausible and sometimes unprecedented conditions based on observations from monitoring and projections from regional climate models. The National Park Service is instructed to incorporate climate considerations in decision processes and management planning as parks consider adaptation options that may deviate from traditional practices.
  - *Planning Needs:* Planning for adaptation to climate change
  - *Data Needs:* Climate change monitoring data

### Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources have been identified as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to the level of high priority, were listed as either medium- or low-priority needs. These priorities inform park management efforts to secure funding and support for planning projects.



Planning Needs – Where A Decision-making Process Is Needed			
Related to an FRV or Key Park Issue?	Planning Needs	Priority (H, M, L)	Rationale/Notes
FRV and Key Park Issue	National Park Service and West Virginia Division of Natural Resources agreement for the management of the Bluestone River	H	An updated agreement would establish shared management goals for the Bluestone Wildlife Management Area, which includes the Bluestone National Scenic River. The goals of the National Park Service and West Virginia Division of Natural Resources do not currently align, and in some instances some goals contradict the other agency's goals. The National Park Service would like to develop a memorandum of understanding to establish a shared vision for addressing management goals. This planning need includes a negotiation strategy to update the agreement.
FRV and Key Park Issue	Long-range interpretive plan	H	A long-range interpretive plan would outline priorities for communications, educational outreach, and for resources that are critical to interpret. The plan would identify interpretive themes and would provide direction for installing a limited number of waysides. A long-range interpretive plan is a high priority for the New River Gorge National River. Therefore it would be most efficient for the Bluestone National Scenic River and the Gauley River National Recreation Area to conduct this planning effort with New River simultaneously because staffing for these park units is shared.
FRV and Key Park Issue	Sign plan	M	A sign plan was prioritized in the park's strategic plan. A sign plan would focus on directional signs (not waysides) along the roadways. The signs would be installed to better orient visitors to Bluestone National Scenic River. The National Park Service would have to work in partnership with the state highway department to develop and install the signs.
FRV and Key Park Issue	Comprehensive river management plan	M	A comprehensive river management plan would be developed for Bluestone National Scenic River. This plan would set long-term goals and implementation strategies to protect and enhance the river's values, and to address development of lands and facilities, user capacities, and other management practices that are necessary or desirable, to achieve the purposes of the Wild and Scenic Rivers Act. The ultimate benefit of this planning effort would be the long-term protection and enhancement of a designated wild and scenic river—attained through more focused resource and visitor use management and better articulation of the river's national significance and importance to the public.
FRV	Planning for adaptation to climate change	M	This plan would help the park to be prepared for the potential challenges associated with climate change.
FRV	Resource stewardship strategy	L	A resource stewardship strategy would serve as a long-range planning document for achieving desired natural and cultural resource conditions, which are derived from relevant laws and NPS policies identified in a park's foundation document, general management plan, or other park plans. The strategy evaluates the major components of the park's fundamental and other important resources that must be protected; establishes science- and scholarship-based methods to evaluate success in protecting these resources; determines measurable targets for success; and includes a comprehensive strategic plan for achieving and maintaining those targets over time. The resource stewardship strategy was ranked as a low priority because the natural resource condition assessment is a precursor to this effort.

Planning Needs – Where A Decision-making Process Is Needed			
Related to an FRV or Key Park Issue?	Planning Needs	Priority (H, M, L)	Rationale/Notes
Key Park Issue	Tourism plan	L	A tourism plan would allow the National Park Service to better articulate how it should market the parks and better work with the state of West Virginia. The plan would provide direction on how to increase awareness that Bluestone National Scenic River is an NPS unit. This effort would align with efforts conducted for the sign plan. Direction for improved communication with agency partners would be part of the tourism plan.
FRV	Camping feasibility study and plan	L	Camping is currently an unauthorized activity at Bluestone. A camping feasibility study would assess the demand for this activity and determine how and where it could occur in the park. This would need to align with the West Virginia Division of Natural Resources agreement for the management of the Bluestone River.
FRV	Wayside plan	L	This plan is needed to better inform the public of the significance of the Bluestone National Scenic River.
Key Park Issue	Communications plan	L	A communication plan would help develop messaging that would bolster local awareness that the Bluestone National Scenic River is a national park unit.



<b>Data Needs – Where Information Is Needed Before Decisions Can Be Made</b>			
<b>Related to an FRV or Key Park Issue?</b>	<b>Data and GIS Needs</b>	<b>Priority (H, M, L)</b>	<b>Notes/Rationale</b>
FRV	Archeological overview and assessment	H	Bluestone National Scenic River also needs archeological overview and assessment studies similar to the ones that have been done for New River Gorge National River. An ethnographic assessment is needed to collect oral histories.
FRV	Archeological survey and cultural GIS data	H	Accurate GIS data for archeological and cultural sites is needed in order for locations to be accurately shown on maps. These data would be used as future planning or development occurs. These data would precede the archeological overview and assessment.
FRV	Property boundary survey	H	This survey would improve understanding of the park boundary, and would allow the National Park Service to accurately map the boundary of the Bluestone National Scenic River. The survey would be an update to the survey that the Army Corps of Engineers conducted in the 1970s. The National Park Service desires to improve these data, and has already started to survey about 6 miles to improve the accuracy of this information. After surveying is completed, marking the area would be the next step.
FRV	Natural resource condition assessment	H	The natural resource condition assessment would identify data needs, and is a communication tool to describe trends and to develop stewardship for working with partners. Although this document would not call for management actions, it would allow managers to easily understand the data that exist. It would be a precursor to other natural resource planning efforts.
FRV	Historic resource study	H	The historic resource study would feed into the land protection strategy. It would also inform the development concept plan. This document would generally inform future management decisions.
FRV	Fauna survey	M	The natural resource condition assessment would precede the fauna survey. The survey is important to better understand fauna populations to inform the stewardship strategies. There are certain instances where the National Park Service has conducted surveys on private lands, but this survey would focus on NPS properties. The West Virginia Division of Natural Resources puts a lot of emphasis on the game species, yet there are additional species that need to be surveyed.
FRV	GIS map of rare plants	M	This effort would provide a map of rare plants located at Bluestone National Scenic River. The necessary data to create the maps are already available.
FRV	Ethnographic overview and assessment	M	An ethnographic overview and assessment would enable the park to capture oral histories and better document traditional family uses along the Bluestone River. This assessment would be similar to those that have been done for the New River Gorge National River.
Key Park Issue	Sign inventory	M	A sign inventory would provide data on all signs inside the park boundary.
FRV	Great hellbender survey	M	The National Park Service would like to survey, and make a concerted effort to locate, great hellbenders in the park. Staff has been expecting to find hellbenders here but has not found them.

<b>Data Needs – Where Information Is Needed Before Decisions Can Be Made</b>			
<b>Related to an FRV or Key Park Issue?</b>	<b>Data and GIS Needs</b>	<b>Priority (H, M, L)</b>	<b>Notes/Rationale</b>
FRV	Rare fish survey	M	The National Park Service would like to survey, and make a concentrated effort to locate, rare fish in the park such as the Bluestone sculpin. The Bluestone sculpin is an endemic species, and the National Park Service has not found them here.
FRV	Climate change monitoring data	M	Obtain and interpret observed and projected climate change monitoring data, including weather data (temperature, precipitation, and storm events) and assessment of climate models (projected climate futures) for the region to support adaptive park planning (e.g., resource stewardship strategy) and management decisions.
Key Park Issue	Visitor surveys	L	A visitor survey is needed to determine why users visit the park. Staff would like to better understand visitor preferences and use patterns.
FRV and Key Park Issue	Updated user counts	L	Updated user counts are needed to better quantify user numbers at Bluestone National Scenic River. It would be useful to have data on the percentage of people who are entering the park from Pipestem Resort State Park, and the percentage who are entering at Lilly. The National Park Service tracks the number of people attending interpretive programs at Pipestem Resort State Park. However, there are no data on the number of people entering the park at Lilly.
FRV	Preference of use survey for local population	L	This survey would help the National Park Service better understand preferences that local people have for recreation in Bluestone National Scenic River.
FRV	Water quality monitoring data	L	
FRV	Research on the right-of-way permit / easement for gas line	L	Research is needed to determine what the National Park Service allowed under each deed.
FRV	Stream flow and sediment load study	L	

## Part 3: Contributors

### Bluestone National Scenic River

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## Appendixes

### Appendix A: Enabling Legislation and Legislative Acts for Bluestone National Scenic River

#### TITLE III—BLUESTONE NATIONAL SCENIC RIVER

##### SEC. 301. DESIGNATION OF LOWER BLUESTONE RIVER.

Section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) is amended by adding the following new paragraph at the end:

“( ) BLUESTONE, WEST VIRGINIA.—The segment in Mercer and Summers Counties, West Virginia, from a point approximately two miles upstream of the Summers and Mercer County line down to the maximum summer pool elevation (one thousand four hundred and ten feet above mean sea level) of Bluestone Lake as depicted on the boundary map entitled ‘Bluestone Wild and Scenic River’, numbered WSR-BLU/20,000, and dated January 1987; to be administered by the Secretary of the Interior as a scenic river. In carrying out the requirements of subsection (b) of this section, the Secretary shall consult with State and local governments and the interested public. The Secretary shall not be required to establish detailed boundaries of the river as provided under subsection (b) of this section. Nothing in this Act shall preclude the improvement of any existing road or right-of-way within the boundaries of the segment designated under this paragraph. Jurisdiction over all lands and improvements on such lands owned by the United States within the boundaries of the segment designated under this paragraph is hereby transferred without reimbursement to the administrative jurisdiction of the Secretary of the Interior, subject to leases in effect on the date of enactment of this paragraph (or renewed thereafter) between the United States and the State of West Virginia with respect to the Bluestone State Park and the Bluestone Public Hunting and Fishing Area. Nothing in this Act shall affect the management by the State of hunting and fishing within the segment designated under this paragraph. Nothing in this Act shall affect or impair the management by the State of West Virginia of other wildlife activities in the Bluestone Public Hunting and Fishing Area to the extent permitted

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102 STAT. 2707

in the lease agreement as in effect on the enactment of this paragraph, and such management may be continued pursuant to renewal of such lease agreement. If requested to do so by the State of West Virginia, the Secretary may terminate such leases and assume administrative authority over the areas concerned. Nothing in the designation of the segment referred to in this paragraph shall affect or impair the management of the Bluestone project or the authority of any department, agency, or instrumentality of the United States to carry out the project purposes of that project as of the date of enactment of this paragraph. Nothing in this Act shall be construed to affect the continuation of studies relating to such project which were commenced before the enactment of this paragraph.”.

Designation of Lower Bluestone
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**TITLE IV—GENERAL PROVISIONS****SEC. 401. COORDINATION AMONG RECREATIONAL RESOURCES.**16 USC 460m-15  
note.

Subject to existing authority, the Secretary of the Interior shall cooperate with, and assist, any regional authority comprised of representatives of West Virginia State authorities and local government authorities in or any combination of the foregoing Nicholas, Fayette, Raleigh, Summers, Greenbrier, and Mercer Counties, West Virginia, for the purposes of providing for coordinated development and promotion of recreation resources of regional or national significance which are located in southern West Virginia and management by State or Federal agencies, including State, local and National Park System units, State and National Forest System units, and historic sites.

**SEC. 402. SPECIAL PROVISIONS.**16 USC 460m-15  
note.  
Contracts.

Subject to his responsibilities to protect the natural resources of the National Park System, the Secretary of the Interior shall enter into a cooperative agreement with the State of West Virginia providing for the State's regulation, in accordance with State law, of persons providing commercial recreational watercraft services on units of the National Park System and components of the National Wild and Scenic Rivers System subject to this Act.

**SEC. 403. PUBLIC AWARENESS PROGRAM.**16 USC 1274  
note.

The Secretary of the Interior shall establish a public awareness program to be carried out in Mercer, Nicholas, and Greenbrier Counties, West Virginia, in cooperation with State and local agencies, landowners, and other concerned organizations. The program shall be designed to further public understanding of the effects of designation as components of the National Wild and Scenic Rivers System of segments of the Bluestone and Meadow Rivers which were found eligible in the studies completed by the National Park Service in August 1983 but which were not designated by this Act as units of such system. By December 31, 1992, the Secretary shall submit a report to the Committee on Interior and Insular Affairs of the United States House of Representatives and to the Committee on Energy and Natural Resources of the United States Senate describing the program undertaken pursuant to this section. Section 7(b) of the Wild and Scenic Rivers Act shall continue to apply to the segments subject to this section until December 31, 1992.

Reports.

Termination  
date.

## Appendix B: Related Federal Legislation

PUBLIC LAW 104-333—NOV. 12, 1996

110 STAT. 4151

construction of parking and related facilities in the vicinity of Woods Ferry for noncommercial use on lands acquired pursuant to paragraph (3) or on lands acquired with the consent of the owner thereof within the boundaries of the recreation area.

“(B) If necessary, in the discretion of the Secretary, in order to minimize environmental impacts, including visual impacts, within portions of the recreation area immediately adjacent to the river, the Secretary may, by contract or otherwise, provide transportation services for noncommercial visitors, at reasonable cost, between such parking facilities and the river.

“(C) Nothing in subparagraph (A) shall affect the rights of any person to continue to utilize, pursuant to a lease in effect on April 1, 1993, any right of way acquired pursuant to such lease which authorizes such person to use an existing road referred to in subparagraph (A). Except as provided under paragraph (2) relating to access immediately downstream of the Summersville project, until there is compliance with this paragraph the Secretary is prohibited from acquiring or developing any other river access points within the recreation area.”.

**(d) AMENDMENTS PERTAINING TO THE BLUESTONE NATIONAL SCENIC RIVER.—**

(1) **BOUNDARIES.**—Section 3(a)(65) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)(65)) is amended by striking out “WSR-BLU/20,000, and dated January 1987” and inserting “BLUE-80,005, dated May 1996”.

(2) **PUBLIC ACCESS.**—Section 3(a)(65) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)(65)) is amended by adding the following at the end thereof: “In order to provide reasonable public access and vehicle parking for public use and enjoyment of the river designated by this paragraph, consistent with the preservation and enhancement of the natural and scenic values of such river, the Secretary may, with the consent of the owner thereof, negotiate a memorandum of understanding or cooperative agreement, or acquire not more than 10 acres of lands or interests in such lands, or both, as may be necessary to allow public access to the Bluestone River and to provide, outside the boundary of the scenic river, parking and related facilities in the vicinity of the area known as Eads Mill.”.

“The Secretary shall permit the State of West Virginia to undertake fish stocking activities carried out by the State, in consultation with the Secretary, on waters within the boundaries of the national river. Nothing in this Act shall be construed as affecting the jurisdiction of the State of West Virginia with respect to fish and wildlife.”

(3) CONFORMING AMENDMENTS.—Title XI of the National Parks and Recreation Act of 1978 (16 U.S.C. 460m-15 et seq.) is amended by adding the following new section at the end thereof:

**“SEC. 1117. APPLICABLE PROVISIONS OF OTHER LAW.**

“(a) COOPERATIVE AGREEMENTS.—The provisions of section 202(e)(1) of the West Virginia National Interest River Conservation Act of 1987 (16 U.S.C. 460ww-1(e)(1)) shall apply to the New River Gorge National River in the same manner and to the same extent as such provisions apply to the Gauley River National Recreation Area.

“(b) REMNANT LANDS.—The provisions of the second sentence of section 203(a) of the West Virginia National Interest River Conservation Act of 1987 (16 U.S.C. 460ww-2(a)) shall apply to tracts of land partially within the boundaries of the New River Gorge National River in the same manner and to the same extent as such provisions apply to tracts of land only partially within the Gauley River National Recreation Area.”

(b) VISITOR CENTER.—The Secretary of the Interior is authorized to construct a visitor center and such other related facilities as may be deemed necessary to facilitate visitor understanding and enjoyment of the New River Gorge National River and the Gauley River National Recreation Area in the vicinity of the confluence of the New and Gauley Rivers. Such center and related facilities are authorized to be constructed at a site outside of the boundary of the New River Gorge National River or Gauley River National Recreation Area unless a suitable site is available within the boundaries of either unit.

(c) AMENDMENTS PERTAINING TO THE GAULEY RIVER NATIONAL RECREATION AREA.—

(1) TECHNICAL AMENDMENT.—Section 205(c) of the West Virginia National Interest River Conservation Act of 1987 (16 U.S.C. 460ww-4(c)) is amended by adding the following at the end thereof: “If project construction is not commenced within the time required in such license, or if such license is surrendered at any time, such boundary modification shall cease to have any force and effect.”

(2) GAULEY ACCESS.—Section 202(e) of the West Virginia National Interest River Conservation Act of 1987 (16 U.S.C. 460ww-1(e)) is amended by adding the following new paragraph at the end thereof:

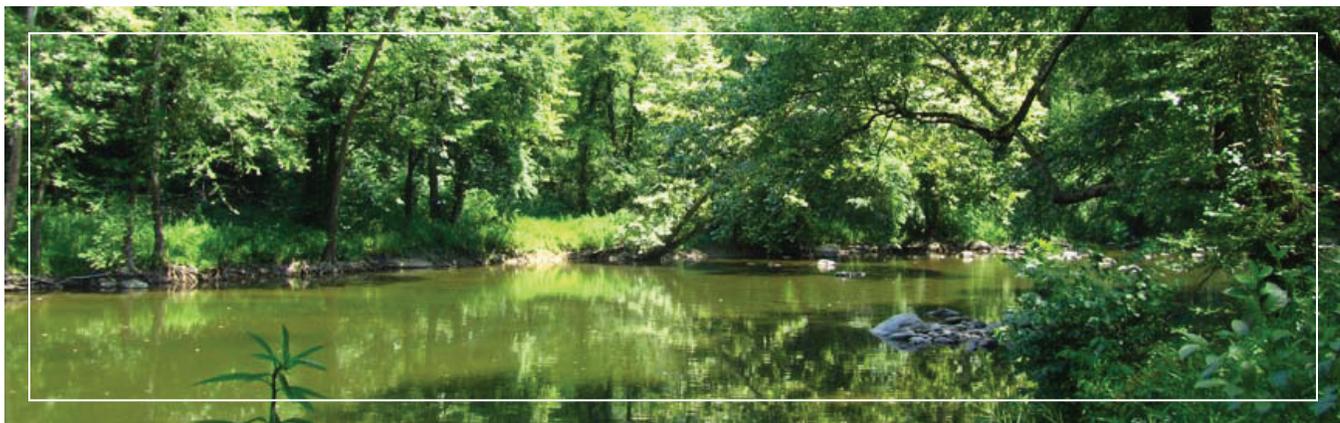
“(4) ACCESS TO RIVER.—(A) In order to facilitate public safety, use, and enjoyment of the recreation area, and to protect, to the maximum extent feasible, the scenic and natural resources of the area, the Secretary is authorized and directed to acquire such lands or interests in lands and to take such actions as are necessary to provide access by noncommercial entities on the north side of the Gauley River at the area known as Woods Ferry utilizing existing roads and rights-of-way. Such actions by the Secretary shall include the

16 USC  
460m-30.

16 USC  
460m-29a.

## Appendix C: Inventory of Administrative Commitments

Agreement Name	Start Date	Expiration Date	Stakeholders	Purpose
<b>General Agreements</b>				
Department of the Interior License: Management of Fish, Wildlife, and Related Habitat	Final signed 10/17/2002	Unable to find final agreement, but NPS documentation notes it is a 10-year agreement (12/31/2010)	Department of the Interior and West Virginia Division of Natural Resources	Agreement for the Bluestone Wildlife Management Area within the Bluestone National Scenic River.
Right-of-way permit Columbia Gas	5/30/1980	5/30/2010	Columbia Gas Company	Gas pipeline – In Office of Evaluations. Right-of-way inherited from US Army Corps of Engineers.
Right-of-way permit Kanawha River – Lurich 345 kV Line	4/30/2012	4/30/2022	American Electric Power	The right-of-way shall be 150-feet wide with 75 feet on either side of the described centerline within segments of NPS Tracts 424, 443 and 444. This right-of-way crosses the Bluestone gorge.
<b>Other</b>				
Original license agreement and five modifications	7/1/1950	6/30/2000	USACE and WV DNR	Conditions of the lease transferred to the National Park Service upon expiration date. The National Park Service continues to manage the property (essentially the entire park) pursuant to the terms of this lease, in partnership with the West Virginia Division of Natural Resources.
SB 112 Title 58 Series 6, West Virginia wildlife management areas	3/23/1995		State of West Virginia	Rule establishes regulations to govern public use of West Virginia wildlife management areas.
Mutual aid wildfire management	N/A	N/A	State of West Virginia	This is an agreement to assist the state with wildfire. As of 2015, the National Park Service was in the process of updating this agreement. It is a mutual aid agreement, and covers outside of the park and inside the park.



## Appendix D: Wild and Scenic River Values

### Wild and Scenic Rivers Act

In 1968, Congress passed the Wild and Scenic Rivers Act. The act “declared to be the policy of the United States that certain selected rivers of the Nation, which with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations” [16 US Code Chapter 28].

The National Park Service is one of the four federal land-managing agencies with wild and scenic river management responsibilities. Wild and scenic rivers administered by the Secretary of the Interior through the National Park Service may flow wholly or partly within the boundaries of existing national park system units, or may constitute new and separate units of the national park system. These congressionally designated wild and scenic rivers are part of both the national park system and the national wild and scenic rivers system (16 USC 1281(c)). Other congressionally designated rivers, such as the Bluestone National Scenic River, are administered by the National Park Service in partnership with state and nongovernmental organizations.

For a river to qualify, a river or river segment must be in a free-flowing condition and must be deemed to have one or more “outstandingly remarkable value.” Under the Wild and Scenic Rivers Act, designated rivers are classified as wild, scenic, or recreational. The classifications primarily relate to the degree of development along the river. Regardless of the classification, each designated river in the national system is to be managed in a way that protects and enhances the values that prompted its designation. The last 10.5 miles of the Bluestone River qualified as a national scenic river as defined below:

“**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.

### Designation of the Bluestone National Scenic River

The 1983 Wild and Scenic River study for the Bluestone National Scenic River examined a 60-mile stretch of the river; however, the 34.5-mile segment of the river upstream from the breached dam at Spanishburg, West Virginia, did not qualify as it lacked outstandingly remarkable values, had poor water quality, and low flow levels. The study determined that the 25.5-mile segment of the Bluestone River between the breached dam and the normal pool elevation of Bluestone Lake was eligible for inclusion in the national wild and scenic rivers system. In 1988, Congress established the lower 10.5-mile section of the Bluestone River as a scenic river under the Wild and Scenic Rivers Act and added the Bluestone National Scenic River unit to the national park system [PL 100-534, as amended]. This action by Congress authorized the transfer of lands from the US Army Corps of Engineers to the Secretary of the Interior. All leases between the United States and the State of West Virginia, with respect to Bluestone Wildlife Management Area and Bluestone State Park, were to remain in effect. The scenic classification is based primarily on the following factors:

- It is free of impoundments.
- The water quality generally meets the minimum criteria for river recreation and is capable of supporting the propagation of aquatic life native to the stream habitat. It does not meet the “unpolluted” requirement for wild classification.
- The shoreline is generally free of development.
- A short upper stretch is accessible by road, while the remaining gorge segment is not.

The headwaters of the Bluestone River begin at an elevation of 3,500 feet on East River Mountain near Bluefield, Virginia, and flow for 77 miles to Bluestone Lake near Hinton, West Virginia, at 1,409 feet. The river, named for the deep blue limestone streambed of its upper reaches in Virginia, has cut an impressive 1,000-foot-deep gorge through a biologically diverse landscape. The bottomland within the gorge was first used by American Indians. In the late 1700s the Lilly, Meadow, and Farley families built homesteads along the river. At the confluence of the Bluestone and Little Bluestone Rivers, the community of Lilly once flourished. The Bluestone Turnpike, a riverbank road used by those who farmed and timbered the area until the 1940s, is used today by visitors to the park.

The Bluestone River and the isolated and primitive character of the gorge is a richly diverse and scenic area of the southern Appalachian Mountains. Time spent in recreational pursuits or thoughtful solitude along this little mountain river offers the user a vestige of primitive America. More than 1,000 species of plants grow in an expanse of unfragmented river to rim forest and aquatic habitat types. The park provides excellent opportunities for watching many mammal, bird, amphibian, reptile and insect species. The riverbed habitat is alive with a carpet of macro-invertebrate aquatic species, and supports healthy populations of many warm water game and nongame fishes. The Bluestone River is classified as a high quality warm water stream by the state of West Virginia.

### **Outstandingly Remarkable Values**

Outstandingly remarkable values are defined by the Wild and Scenic Rivers Act as the characteristics that make a river worthy of special protection. The outstandingly remarkable value, free-flowing condition, and water quality are all integral values to the protection of wild and scenic rivers, and are key considerations for management of national wild and scenic river areas. Thus, the foundation for wild and scenic river management is a clearly defined set of outstandingly remarkable values, free-flowing condition, and water quality.

The Interagency Wild and Scenic Rivers Coordinating Council issued criteria for identifying and defining outstandingly remarkable values. The criteria guidance states that:

- An outstandingly remarkable value must be river related or dependent. This means that a value must be located in the river or on its immediate shore lands (generally within 0.25 mile on either side of the river), contribute substantially to the functioning of the river ecosystem, and owe its location or existence to the presence of the river.
- An outstandingly remarkable value must be rare, unique, or exemplary at a comparative regional or national scale. Such a value would be one that is a conspicuous example from among a number of similar values that are themselves uncommon or extraordinary.

The Bluestone National Scenic River is most noted for its scenic beauty, wealth of recreational opportunities, and its proximity and access to regional population centers. The outstandingly remarkable values that make the Bluestone National Scenic River include scenic, recreational, and fish and wildlife values, and are described on the following pages.

### **Scenic Values**

The undeveloped primitive character and unfragmented river to rim forest of the Bluestone River Gorge provide outstanding scenic beauty to the visitors and recreationists that come to Bluestone National Scenic River. The gorge possesses a rich variety of aquatic, riparian, and forest habitats including hemlocks and rhododendron thickets that offer the visitor a mosaic of scenic diversity. The lack of development within the scenic river corridor adds to the area's tranquility and solitude.

Trails in Bluestone State Park and Pipestem Resort State Park take park users to overlooks where the hiker can relax and enjoy the scenic beauty that the gorge and river corridor has to offer. The Bluestone Turnpike Trail runs the full length of the scenic river corridor providing hikers the opportunity to experience firsthand the peacefulness and beauty of the gorge.

## Recreational Values

The Bluestone National Scenic River contains an abundant variety of fish, wildlife, and game species, providing important public opportunities for traditional recreation uses such as hunting, fishing, and trapping. The scenic river also provides outstanding leisure time recreational opportunities including paddling, biking, hiking, horseback riding, bird and wildlife watching, photography, and picnicking. Boating (rafting, kayaking, and canoeing) within the Bluestone River corridor affords paddlers a class three whitewater experience upstream of the national scenic river area from Ends Mill to Pipestem Resort State Park. Within the national scenic river designation, boaters will experience class one to class two rapids as they paddle through a peaceful, undeveloped river gorge. The isolated, primitive character for the Bluestone National Scenic River allows people the opportunity to experience solitude and reflection while recreating.

Recreational access to the Bluestone National Scenic River is achieved through Pipestem Resort State Park at its southern boundary, Bluestone State Park and Bluestone Lake on its northern boundary, and road access to a park-owned and -maintained parking lot at the confluence of the Bluestone and Little Bluestone Rivers. These entities, along with the Bluestone Wildlife Management Area, offer people a variety of leisure and traditional recreational opportunities that spill over into the scenic river corridor.

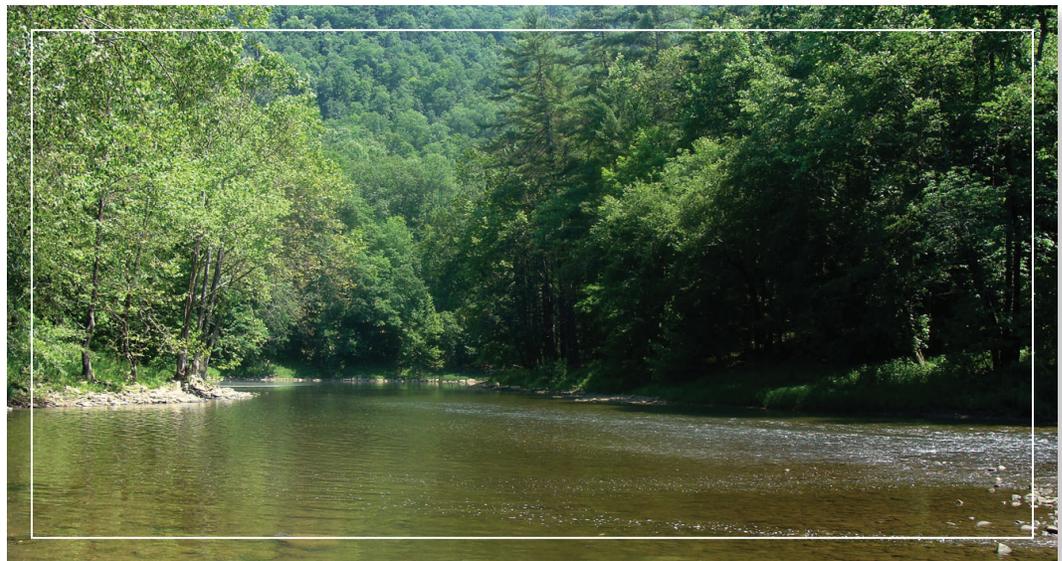
Bluestone Lake is managed by the US Army Corps of Engineers and impounds a 10.7-mile stretch of the New River and its tributary, the Bluestone River. At normal pool elevation, the lake covers 2,040 acres and 28 miles of shoreline providing boaters, water-skiers, and fishermen with great recreational opportunities and affording other visitors with 12 recreation areas, 110 picnic sites, 499 camping sites, 3 playgrounds, 2 swimming areas, 6 hiking trails, 1 fishing dock, 8 boat ramps, and 75 marina slips. Many of these recreational facilities and opportunities are managed by West Virginia Division of Natural Resources through Bluestone State Park and Bluestone Wildlife Management Area. In fiscal year 2014, recreational visitation at the lake was 1.6 million visitors.



Bluestone State Park borders the northern boundary of the Bluestone National Scenic River and provides direct access to the area. The park encompasses more than 2,145 acres of rugged, heavily forested, mountainous terrain and provides a wide variety of water-oriented activities centered around Bluestone Lake for park guests and residents of southern West Virginia. It offers recreationists 26 modern cabins, 2 campgrounds, boat ramps, 6 miles of hiking trails, and an outdoor swimming pool. Visitation at Bluestone State Park during fiscal year for 2014 (June–May) was 215,172 people.

Pipestem Resort State Park encompasses the southern end of the national scenic river corridor, which flows through the state park on this end of the designated area and comprise 4,073 land acres. The state park is operated as a year-round resort with a wide range of recreation facilities and accommodations, including two lodges and a conference center. Mountain Creek Lodge sits on the banks of the Bluestone River (within the Bluestone National Scenic River) and affords park guests a firsthand opportunity to experience the Bluestone National Scenic River any time of the day. An aerial tramway carries people from the rim of the gorge to the river at Mountain Creek Lodge, providing them easy access to the Bluestone National Scenic River. The Canyon Rim Trail descends 500 feet from the rim to Heritage Point Overlook, offering park users an outstanding vista into the scenic beauty of the Bluestone River and gorge. Recreational opportunities at the park include the nature center, recreation center, historic sites, 20 hiking and biking trails, fishing, canoeing, paddle boating, horseback riding, disc golf, foot golf, one 9-hole and one 18-hole golf course, radio control race tracks, indoor and outdoor swimming pools, cross country skiing, picnicking, and archery. Pack trips bring park users down into and through the Bluestone National Scenic River on their way to designed overnight campsites and lodging. From June 2013 through May 2014, park visitation was 366,000 people.

Bluestone Wildlife Management Area offers visitors a variety of outdoor recreational opportunities on 17,632 acres surrounding Bluestone Lake and in the Bluestone National Scenic River designated area. All lands owned by the National Park Service within the congressional boundary of the Bluestone National Scenic River are also managed as part of the Bluestone Wildlife Management Area by the state of West Virginia. People from all over West Virginia and surrounding states come to enjoy traditional recreation uses within the wildlife management area, such as hunting, fishing and trapping. The Bluestone Wildlife Management Area offers hunters the opportunity to hunt white-tail deer, bear, turkey, squirrel, rabbit, ruffed grouse, bobwhite quail, raccoon, red and gray fox, bobcat, coyote, skunk, opossum, woodchuck, and weasel. Trappers are afforded the chance to trap raccoon, red and gray fox, bobcat, mink, beaver, otter, coyote, skunk, opossum, and weasel. Anglers can enjoy casting for small and largemouth bass, spotted bass, muskellunge, walleye, white bass, rock bass, crappie, several species of sunfish, channel catfish, and flathead catfish.



## Fish and Wildlife

The West Virginia Division of Natural Resources classifies the Bluestone River as a high quality warm water stream, and manages the Bluestone River within Bluestone National Scenic River as a warm water fishery, supplemented by spring and fall plantings of catchable rainbow trout.

Because of its downstream connection to Bluestone Lake and the greater New River drainage basin, the Bluestone River contains a great variety of warm water game and nongame fish species. Many of these fish migrate back and forth between Bluestone Lake and Bluestone River to feed, spawn, seek shelter, or find a different temperature regime. For similar reasons, some fish move or migrate out of Bluestone National Scenic River in an upstream direction in the Bluestone River or its tributaries Little Bluestone River and Mountain Creek.

Game fishes reported or possible in Bluestone National Scenic River include black bass (largemouth bass, smallmouth bass, spotted bass), sunfish (bluegill, green sunfish, longear sunfish, pumpkinseed, redbreast sunfish, rock bass), crappie (black, white), catfish (channel, flathead), pike (chain pickerel, muskellunge), striped bass, (striped, white, hybrid), perch (walleye, yellow perch), the American eel, bowfin, and a minnow (common carp). Of all the game fish, only American eel, green sunfish, flathead catfish, and channel catfish are considered to be native to the New River drainage. Recent investigations on the upper New River in Virginia suggest that it contains a native strain of walleye that is now being stocked in the West Virginia portion of the New River watershed.

Nongame fish species reported or possible in Bluestone National Scenic River include minnows (bigmouth chub, blacknose dace, Central stoneroller, fathead minnow, mimic shiner, New River shiner, rosyface shiner, spotfin shiner, spottail shiner, striped shiner, telescope shiner, white shiner, whitetail shiner), perch (logperch, Appalachia darter, candy darter, fantail darter, greenside darter, Kanawha darter, rainbow darter, Roanoke darter, sharpnose darter, variegated darter), sucker (Northern hogsucker, white sucker), herring (gizzard shad, threadfin shad), brook silversides, and sculpins (banded, mottled, Bluestone). The percentage of native fish species is much greater for nongame species than it is for game species. Many of the nongame species were introduced for bait or game fish forage, and some of these are out-competing ecologically similar native species. The bigmouth chub, New River shiner, Appalachia darter, candy darter, Kanawha darter, and Bluestone Sculpin are considered endemic to the New River watershed. Only the bigmouth chub is common, with the others existing in a tenuous and declining state of rarity.

Bluestone National Scenic River is located in the largest remaining example of mid-latitude forest in the world. The moist, temperate climate of the Allegheny plateau interacts with the gorge topography to create conditions favorable to a mixed-mesophytic forest which, with adjacent and nearby areas, is considered the best example in the United States. The park's varied topography, moisture regimes, and solar exposures combine to create a kaleidoscope of habitats that nurture 22 different plant communities, 8 of which are considered rare. In contrast, the nearby and much larger New River Gorge National River (72,189 acres compared to 4,336 acres) contains 41 plant communities, 10 of which are considered rare.

The variety of forest and understory habitats, combined with abandoned farms, a relatively wide floodplain, and management for certain game species by the West Virginia Division of Natural Resources nurture a great variety of wildlife common to the Allegheny plateau.

Mammals known or possible from Bluestone National Scenic River include Allegheny woodrat, American beaver, bats (big brown, Eastern pipistrelle, Eastern red, Eastern small-footed, hoary, Indiana, little brown, Northern myotis, Rafinesque's big-eared, silver-haired, Virginia big-eared), black bear, bobcat, coyote, common muskrat, Eastern chipmunk, Eastern cottontail, fox (gray, red), mice (American deer, Eastern harvest, golden, white-footed), moles (hairy-tailed, star-nosed), Northern raccoon, shrews (American water, least, masked, Northern short-tailed, rock, smoky, Southeastern, pygmy), skunks (Eastern spotted, striped), squirrels (Eastern gray, Eastern fox, red, Southern flying), Virginia opossum, voles (meadow, rock, Southern red-backed, woodland), weasels (American mink, least, long-tailed, Northern river otter), white-tailed deer, and woodchuck (groundhog).

A great number of birds are known from or may occur in Bluestone National Scenic River. Common game birds include upland species such as wild turkey, ruffed grouse, quail, mourning dove, and American woodcock, and waterfowl such as Canada geese and a number of ducks and their relatives. Common raptors include black and turkey vultures, Cooper’s hawk, red-tailed hawk, and osprey. Bald eagles nest along the New River and besides Bluestone Lake, and can be expected in Bluestone National Scenic River. Wading and shore birds such as killdeer and great blue heron are common.

The greatest variety of bird species that occur in Bluestone National Scenic River are probably the neotropical songbirds. These seasonal migrants winter much farther south, often in South America, and come north in the spring to nest, raise young, and feed for the coming journey back south to avoid the cold and foodless winter.

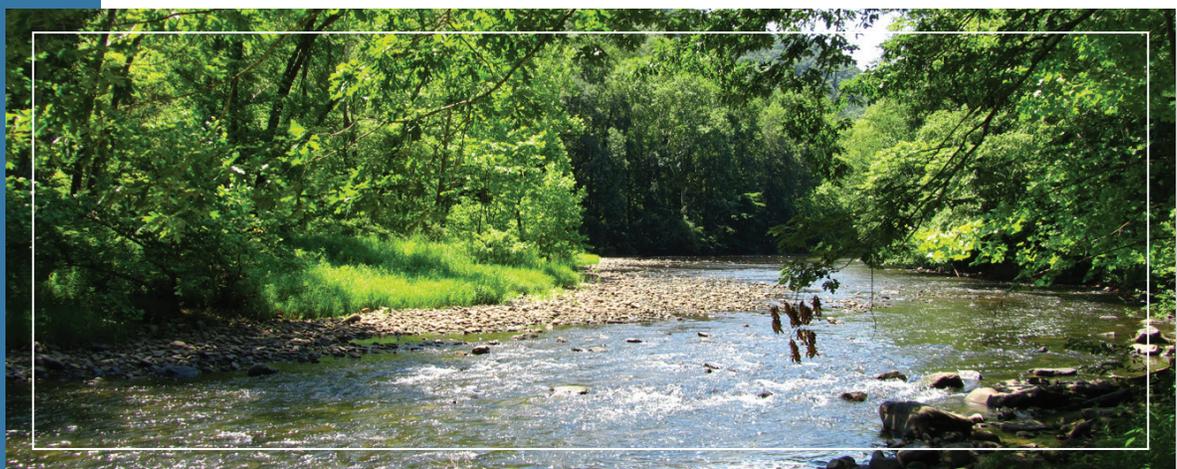
A great variety of amphibians and reptiles are known or possible in Bluestone National Scenic River. The region has a great diversity of salamanders, and as many as 22 species could be found in the park, ranging in size from small, secretive species to those that can grow to 17 inches (mudpuppy) or even 20 inches (Eastern hellbender). Other amphibian species include 2 toads, 3 tree frogs, 2 chorus frogs, and 5 true frogs. Among reptile species, there are as many as 6 turtles, a lizard, a skink, and 13 snakes.

### Free-flowing Condition

Section 16(b) of the Wild and Scenic Rivers Act defines free-flowing as “existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the national wild and scenic rivers system shall not automatically bar its consideration for such inclusion: Provided, that this shall not be construed to authorize, intend, or encourage future construction of such structures in components of the national wild and scenic rivers system.”

The presence of impoundments above and/or below the segment (including those that may regulate flow within the segment), and existing minor dams or diversion structures within the study area, do not necessarily render a river segment ineligible. There are segments in the national system that are downstream from major dams or are located between dams (Interagency Wild and Scenic Rivers Coordinating Council, 2014).

Bluestone Dam on the New River impounds the lowermost 2.4 miles of the Bluestone River, but there is no constant slack water between river mile 2.4 (elevation 1,409 feet) and river mile 10.3 (elevation 1,520 feet). This stretch is subject to inundation for short durations as water storage occurs in Bluestone Lake for flood control. Slack water extends approximately 3 miles upstream (1,452 feet elevation) with a frequency of once a year, 6 river miles (1,484 feet elevation) once every 10 years, and 8 river miles (1,520 feet elevation, maximum flood pool) once every 100 years. Maximum flood pool has never been reached. Boating usually extends to normal pool elevation. The entire segment possesses a variety of natural flow conditions.



## Water Quality

There are several water quality issues in the Bluestone River. These include polychlorinated biphenyls (PCBs), mercury, biological conditions not allowed, and fecal coliform bacteria.

West Virginia lists the Bluestone River as impaired due to PCBs. West Virginia plans to produce a Total Maximum Daily Load, a pollution reduction plan for PCBs, in 2017. PCBs are a group of long-lived, nonbiodegradable compounds that have various industrial applications. Their best known use is in electrical transformers. Unfortunately, PCBs tend to be a cumulative poison in animal tissues. As such, they pose a serious environmental hazard, and create a human health hazard when contaminated fish are consumed. West Virginia has statewide consumption advisories based on PCBs for all fish species except rainbow trout. These advisories list the pertinent fish species, the number of meals a month that are considered safe, and a meal portion based on the diner's weight.

The statewide consumption advisory for fish also lists mercury as a contaminant. Mercury usually enters waters through deposition of particulates transferred to the atmosphere through burning of coal. At present, waters in Bluestone National Scenic River are not listed as impaired for mercury.

The Bluestone River is also listed as impaired for "Conditions Not Allowable – Biology" for which a Total Maximum Daily Load was prepared in 2008. Biological conditions not allowed usually refer to samples of aquatic biota that are well below conditions found in regional reference streams. The specific conditions usually refer to species diversity and the relative proportions of organisms (usually aquatic insects) that are indicators of good or poor water quality. Such conditions are usually the result of land-clearing or other surface-disturbing activities that remove vegetative cover and result in rapid runoff of water and soil erosion that contributes excessive sediment into streams. Excessive runoff can scour stream channels, erode banks, and create current velocities that aquatic species cannot withstand. Excessive sediment can suffocate the smaller life forms that are the basis of aquatic food webs, reduce usable habitat for many species, reduce habitat diversity, and physically impair aquatic species. These conditions occur in the Bluestone River upstream of Bluestone National Scenic River, but the increased runoff and sediment has the potential to negatively affect water quality in the park.

The Bluestone River and its tributary Mountain Creek are listed as impaired for fecal coliform bacteria, for which Total Maximum Daily Loads were also produced in 2008. Fecal coliform (FC) bacteria form the basis of West Virginia water quality standards for water contact recreation. The standards are that waters should not exceed 200 FC/100ml of water (based on the average of at least five samples a month) or that waters should not exceed 400 FC/100ml in more than 10% of samples.

NPS water quality monitoring shows that since 1991 the three sites on the Bluestone River exceed 400 FC/100 ml between 14% and 18% of the time. Mountain Creek exceeds that standard 10% of the time, and Little Bluestone River 9% of the time.

The great majority of fecal coliform bacteria contamination in Bluestone National Scenic River originates outside the park. Sources include nonexistent or inadequate septic systems and sewer treatment, and well as livestock (e.g., cattle, poultry) and wildlife (e.g., deer, Canada geese) associated with upstream sources.

## Conclusion

In developing the Bluestone National Scenic River foundation document, the river's wild and scenic river values have been considered and referenced, as appropriate, within part 1 elements including park purpose, significance, fundamental resources and values, and interpretive themes. Additional consideration of these values is reflected in part 2 foundation elements, including the special mandates and administrative commitments and assessment of planning and data needs. Please refer to the aforementioned sections of the document to see how wild and scenic river values have been incorporated.

## Appendix E: Past and Ongoing Park Planning Efforts and Data Collection Efforts

Document Name	Date Completed
Superintendent's Compendium of Designations, Closures, Permit Requirements and Other Restrictions Imposed Under Discretionary Authority: New River Gorge NR, Gauley River NRA, Bluestone NRA.	2015
Forest Vulnerability Project Brief: Climate, Trees, Pests, and Weeds: Change, Uncertainty, and Biotic Stressors in Eastern National Park Forests. Ft. Collins, CO.	2015
Bluestone National Scenic River (BLUE): Species Full List with Details. Content downloaded from IRMA species list.	2015
Forest Health Monitoring in the Eastern Rivers and Mountains Network: 2009-2012 Summary Report.	2014
Hemlock Woolly Adelgid Control Project Annual Report 2012: New River Gorge National Recreation River, Gauley River National Recreation Area, and Bluestone National Scenic River.	2014
Southern Appalachian Mountains Cooperative Ecosystem Studies Unit Cooperative and Joint Venture Agreement.	2014
Condition of Soils in Eastern Rivers and Mountains Network Parks.	2014
Climate Change Resource Brief: Recent Climate Change Exposure of Bluestone National Scenic River.	2014
Weather of Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Eastern Rivers and Mountains Network Summary Report for 2013.	2014
Early Detection of Invasive Species – Surveillance Monitoring and Rapid Response: Eastern Rivers and Mountains Network 2011–2012 Summary Report.	2013
Streamside Bird Monitoring: Eastern Rivers and Mountains Network 2007–2012 Summary Report.	2013
Weather of Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Eastern Rivers and Mountains Network Summary Report for 2012.	2013
New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River: Connecting the Parks with Their Gateway Communities Concept Plan.	2012
Weather of Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Eastern Rivers and Mountains Network Summary Report for 2011.	2012
Evaluation of the Sensitivity of Inventory and Monitoring National Parks to Nutrient Enrichment Effects from Atmospheric Nitrogen Deposition: Eastern Rivers and Mountains Network (ERMN).	2011
Early Detection of Invasive Species; Surveillance, Monitoring, and Rapid Response: Eastern Rivers and Mountains Network Summary Report 2010.	2011
Wadeable Stream Monitoring in the Eastern Rivers and Mountains Network 2009-2010 Summary Report.	2011
Evaluation of the Sensitivity of Inventory and Monitoring National Parks to Acidification Effects from Atmospheric Sulfur and Nitrogen Deposition: Main Report.	2011
Evaluation of the Sensitivity of Inventory and Monitoring National Parks to Acidification Effects from Atmospheric Sulfur and Nitrogen Deposition: Eastern Rivers and Mountains Network.	2011
Weather of Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Eastern Rivers and Mountains Network Summary Report for 2010.	2011
Integrity of Benthic Macroinvertebrate Communities in Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Eastern Rivers and Mountains Network 2009 Summary Report.	2010
Condition of Vegetation Communities in Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Eastern Rivers and Mountains Network Summary Report 2007–2009.	2010
Early Detection of Invasive Species; Surveillance, Monitoring, and Rapid Response: Eastern Rivers and Mountains Network Summary Report 2008–2009.	2010

Document Name	Date Completed
Conceptual Model and Recommendations for Monitoring Plant Communities within Riverine Parks of the Eastern Rivers and Mountains Network.	2010
Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Weather of 2007.	2010
Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Weather of 2008.	2010
Bluestone National Scenic River, Gauley River National Recreation Area, and New River Gorge National River: Weather of 2009.	2010
Global Conservation Status Ranks of State-Rare Vegetation Associations in the Eastern Rivers and Mountains Network.	2010
Socioeconomic Indicator Mapping, Eastern Rivers and Mountains Network.	2009
A Method for Developing Ecological Systems Maps from US National Vegetation Classification Association-level Vegetation Maps for Eight National Parks in the Eastern Rivers and Mountains Network of the National Park Service.	2009
Development of the Natural Gas Resources in the Marcellus Shale: New York, Pennsylvania, Virginia, West Virginia, Ohio, Tennessee, and Maryland.	2009
Floristic Inventory of Bluestone National Scenic River, West Virginia.	2008
Vegetation Classification and Mapping of Bluestone National Scenic River, West Virginia.	2008
Potential Development of the Natural Gas Resources in the Marcellus Shale: New York, Pennsylvania, West Virginia, and Ohio.	2008
Structure and Functioning of Large River Ecosystems in the Eastern Rivers and Mountains Network: Conceptual Models and Vital Signs Monitoring.	2007
Survey of Bat Communities in the New River Gorge National River, Gauley River National Recreation Area, and Bluestone National Scenic River: Species Occurrence, Relative Abundance, Distribution, and Habitat Use.	2007
Structure and Functioning of Terrestrial Ecosystems in the Eastern Rivers and Mountains Network: Conceptual Models and Vital Signs Monitoring.	2006
Fishes of Bluestone National Scenic River.	2006
Weather and Climate Inventory National Park Service, Eastern Rivers and Mountains Network.	2006
Wildland Fire Management Plan: New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area.	2005
Paleontological Resource Inventory and Monitoring: Eastern Rivers and Mountains Network.	2004
Water Quality Monitoring Program 1998–2000: New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area.	2003
Final Report of Review of Plant Species Lists for New River Gorge National River, Bluestone National Scenic River, and Gauley National Recreation Area.	2002
Cerulean Warbler ( <i>Dendroica cerulea</i> ) Microhabitat and Landscape-Level Habitat Characteristics in Southern West Virginia in Relation to Mountaintop Mining/Valley Fills.	2002
Water Resources Management Plan: New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River, West Virginia.	2002
Report: New River Gorge National River, Gauley River National Recreation Area, and Bluestone National Scenic River.	2001

Document Name	Date Completed
Avian Point Count Surveys in the Bluestone National Scenic River Area.	2000
Water Quality Monitoring Program 1994–1997: New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area.	2000
New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River: GPRA.	1997
New River Gorge National River, Gauley River National Recreation Area, and Bluestone National Scenic River, West Virginia: Water Resources Scoping Report.	1996
Reconnaissance Vegetation Study of The Bluestone, New, and Gauley River Gorges.	1995
Baseline Water Quality Data Inventory and Analysis: Bluestone National Scenic River.	1995
Resource Management Plan 1994: New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River. Glen Jean, WV.	1994
Bluestone National Scenic River and Gauley River National Recreation Area – Water Quality Monitoring Program, April–October 1992.	1993
AIPM Gypsy Moth Monitoring Program: 1992 Trapping Summary. New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River.	1992
Rare Species Survey of Bluestone Scenic River.	1992
Bluestone National Scenic River & Gauley River National Recreation Area: Fecal Coliform Study April–September.	1991
Final Wild and Scenic River Study: Bluestone River.	1983
Comprehensive Survey of the Bluestone River Basin – Volume I.	1978



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## Notheast Region Foundation Document Recommendation Bluestone National Scenic River

March 2016

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This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Northeast Regional Director.

*Trish Kicklighter*

*3-16-2016*

RECOMMENDED

Trish Kicklighter, Superintendent, Bluestone National Scenic River

Date

*Brin Stuch*

*3-17-2016*

APPROVED

*for* Michael Caldwell, Regional Director, Northeast Region

Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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