National Park Service
U.S. Department of the Interior

General Management Plan

New River Gorge National River

West Virginia
2011

Cover and Title Page Photos: NPS/Gary Hartley

New River Gorge National River General Management Plan

Department of the Interior
National Park Service
Glen Jean, West Virginia

2011

(Photo: NPS/Gary Hartley)

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2028 Vision for New River Gorge National River

Endless Wall (Photo: NPS/ Gary Hartley)

Nuttallburg Mine (Photo: NPS/ Gary Hartley)

OVERVIEW

In 2028 New River Gorge National River lies at the heart of a protected network of natural, cultural, scenic, and recreational resources that epitomizes the rugged grandeur and heritage of the Appalachian Mountains in southern West Virginia. Natural processes, natural beauty, and history combine at the park to create a spectacular opportunity for the people of the United States and the world to understand and enjoy the country's most dramatic Appalachian Mountain river gorge. Managed with maximum use of natural resource restoration and historic preservation partnerships, the park is relevant to its users, and the public appreciates the park's significance and stature as a unit of the national park system.

NATURAL RESOURCES

The park's natural resources – once exploited during the industrialization of America – have recovered. The park is an oasis of wildness in the eastern United States and is a model for other places coming back from past industrial uses. The New River runs free-flowing for 53 miles through the park, changing from a river coursing gently through a wide valley to a wild river pounding through the lower New River Gorge, carved over 1,000 feet into the rocks of the Appalachian Plateau. The waters of the New River and its tributaries – no longer impaired by man-induced pollutants – support a highly productive aquatic ecosystem. Within the gorge the largely unbroken expanse of forest supports diverse plants and wildlife native to the river gorges of the Appalachians. Rimrock areas, cliffs, dark forest seeps, and riverside flatrock areas support rare ecological communities. Abundant and diverse breeding bird populations flourish in the forest canopy.

CULTURAL RESOURCES

Remnants of the park's past - hidden within the forest – tell the stories of former life in the Appalachian Mountains. Creative partnerships have made it possible to stabilize, rehabilitate, or restore the most significant historic resources. In the gentle terrain of the upper gorge are restored and rehabilitated early European farmsteads. Within the gorge is a wealth of historically significant abandoned places, some in ruins and some stabilized and rehabilitated, where people worked and lived during the late 18th and 19th centuries, supplying the coal and lumber that helped fuel American industry.

SCENIC RESOURCES

The park's setting – both dramatic and tranquil – inspires visitors in many ways. From overlooks, trails, and the river there are stunning views of natural lands – rugged forest, deep gorges, the river, mountain streams, and outstanding rock formations. The lack of modern intrusions adds to the drama of the park's scenery.

VISITOR EXPERIENCE

Visitors to the park enjoy the many high quality experiences it has to offer – to explore history, to seek adventure, to feel solitude, to be challenged, and to share life experiences with others. Park facilities and programs reflect a central theme that helps visitors better understand how the park is organized, the opportunities that are available, and how to travel in the complicated network of local roads and trails in the park's rugged terrain. Visitor facilities support desired experiences and are designed and located with minimal impact on park resources. Interpretive and educational programs are expanded to increase visitor understanding and appreciation of the park's resources.

REGIONAL PARTNERSHIPS

Throughout the region recreational opportunities are enhanced and the visitor base is growing. Solid partnerships exist between the National Park Service, the park's neighboring communities, the Coal Heritage Area, regional economic development interests, and other state and federal agencies. Visitor programs are coordinated to tell complementary stories of the region's heritage, such as the uniquely American industrial stories related to coal mining, railroading, and lumbering, as well as the story of post-industrial recovery. A network of scenic roads and trails connects the region's attractions. Visitors stopping at attractions are informed about other places of interest and the programs offered throughout the region.

LOCAL PARTNERSHIPS

Ecosystem restoration and smart growth strategies are in place in the park's neighboring communities. The National Park Service's inventory, monitoring, and recovery programs for native species contribute to community efforts to restore and maintain healthy ecosystems. Land use planning technical assistance from the National Park Service helps its community partners accomplish long-term goals that are compatible with the park's purpose.

The park's neighbors understand and appreciate its significance as a unit of the national park system. Local citizens are proud to have the National Park Service as a neighbor and assist in showcasing their heritage. The park's volunteer program is popular; all ages can participate in meaningful ways to benefit resources and visitors.

Sandstone Visitor Center (Photo: NPS/ Gary Hartley)

Whitewater Rafting (Photo: NPS/ Gary Hartley)

Acronyms

AMD – acid mine drainage

ARNI – aquatic resource of national importance

ATV – all terrain vehicle

ATS – alternative transportation system

BMP – best management practice

BSA – Boyscouts of America

CBA – Choosing By Advantages

CCC – Civilian Conservation Corps

CEQ – Council on Environmental Quality

CVB – Convention and Visitors Bureau

C&O – Chesapeake and Ohio Railroad

CSX – CSX Railroad

EIS – environmental impact statement

FTE – Full-time equivalent (staff positions)

GMP – general management plan

I - interstate

IMBA – International Mountain Bicycling Association

MYBP – million years before present

NCHA – National Coal Heritage Area

NERI – New River Gorge National River

NPS – National Park Service

ORV – outstandingly remarkable values

OSDS – on-site wastewater disposal system

PEPC – Planning, Environment and Public Comment System

PIF – Partners in Flight

PL – Public Law

RL – river left (includes the shoreline and adjacent upland on the left side of the New River when looking downstream)

RR – river right (includes the shoreline and adjacent upland on the right side of the New River when looking downstream)

SR – West Virginia state road

US ACE – U.S. Army Corp of Engineers

USC – U.S. Code

WV DNR – West Virginia Division of Natural Resources

WV DOT – West Virginia Department of Transportation

WV DOH – West Virginia Division of Highways

WV SR – West Virginia State Road

WVPRO – West Virginia Professional River Outfitters

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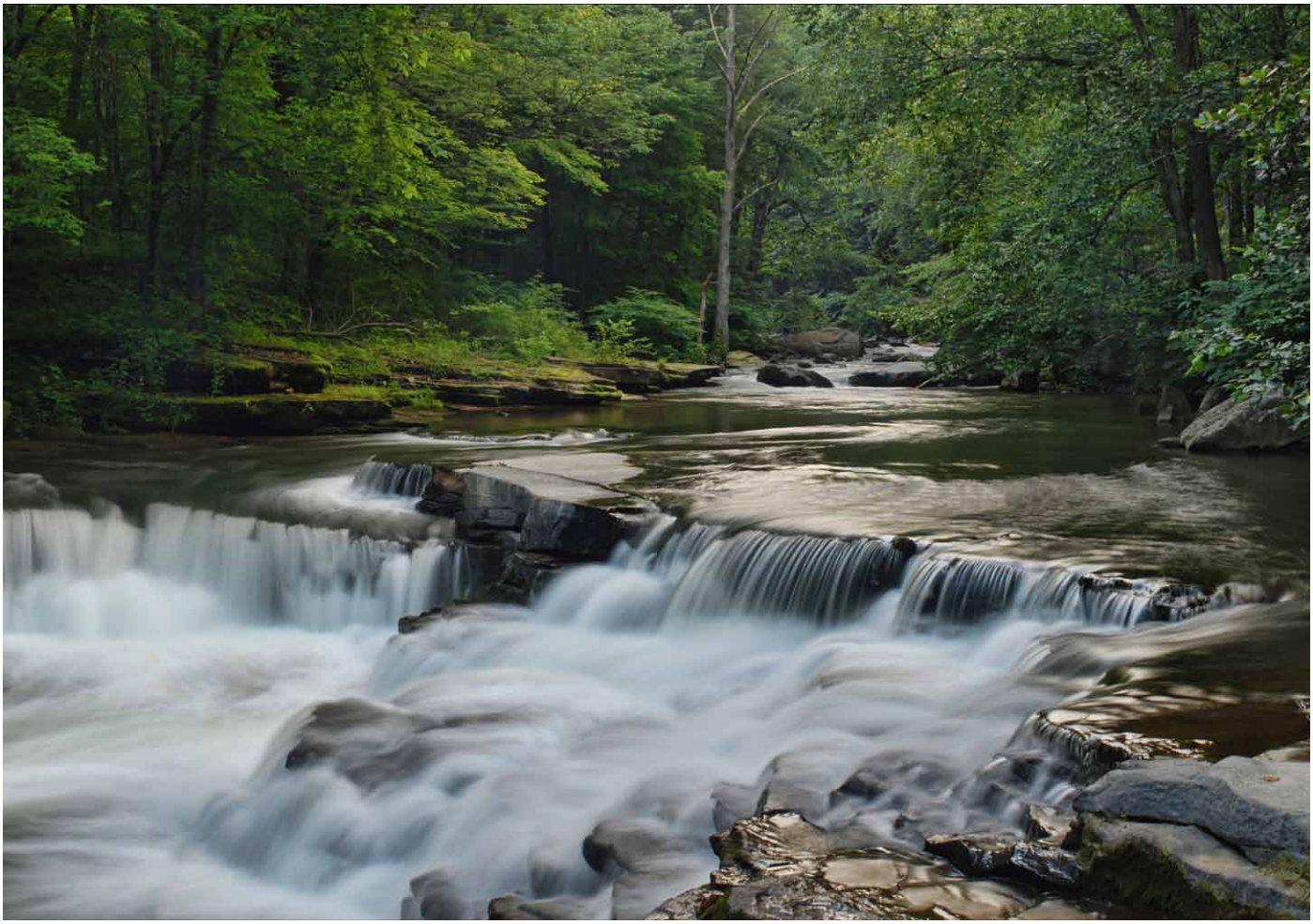
Park Overview

Rams Head – one of many landforms shaped by the New River as it cut through the Appalachian Plateau.

Broad views of unbroken forest, steep gorge walls, and a river both tranquil and turbulent are punctuated by pastoral landscapes and industrial ruins to produce dramatic and extraordinary views from the river, along trails and rural roads, and from rocky overlooks.

Opposite side: Panoramic views of the New River and its gorge.
Section Divider Photos: NPS/Gary Hartley



Two miles above the New River, Dunloup Creek features a waterfall and quiet pools that are home to aquatic insects and invertebrates. (Photo: NPS/Gary Hartley)

New River Gorge National River

PARK OVERVIEW

INTRODUCTION

New River Gorge National River preserves a free-flowing 53-mile segment of the New River in southeast West Virginia. New River Gorge – over 1000 feet deep – is the park's most prominent physiographic feature and is the longest and deepest river gorge in the Appalachian Mountains. The waters and hydrologic features of the river and its tributaries support a unique aquatic ecosystem. Within and surrounding the gorge is a globally significant unfragmented forest that provides habitat for diverse breeding bird populations and rare species. Along the river, historic places tell the stories of those who settled the gorge from the 19th and mid-20th centuries, including early settlers and those who worked in the lumbering, railroading, and mining industries. Scenic resources abound, visible from the river, rocky overlooks, trails, and rural roads. Visitors who explore the park enjoy diverse opportunities for recreation, such as paddling, fishing, hunting, hiking, biking, rock climbing, camping, wildlife viewing, and discovering history.

25th Anniversary Celebration of the Park's Establishment. New River Gorge National River was designated as a unit of the National Park System in 1978. (Photo: not known)

PARK ORIGIN AND LEGISLATIVE HISTORY

President Jimmy Carter signed legislation establishing New River Gorge National River on November 10, 1978 (P.L. 95-625) (see Appendix A). As stated in the legislation the park was established as a unit of the national park system:

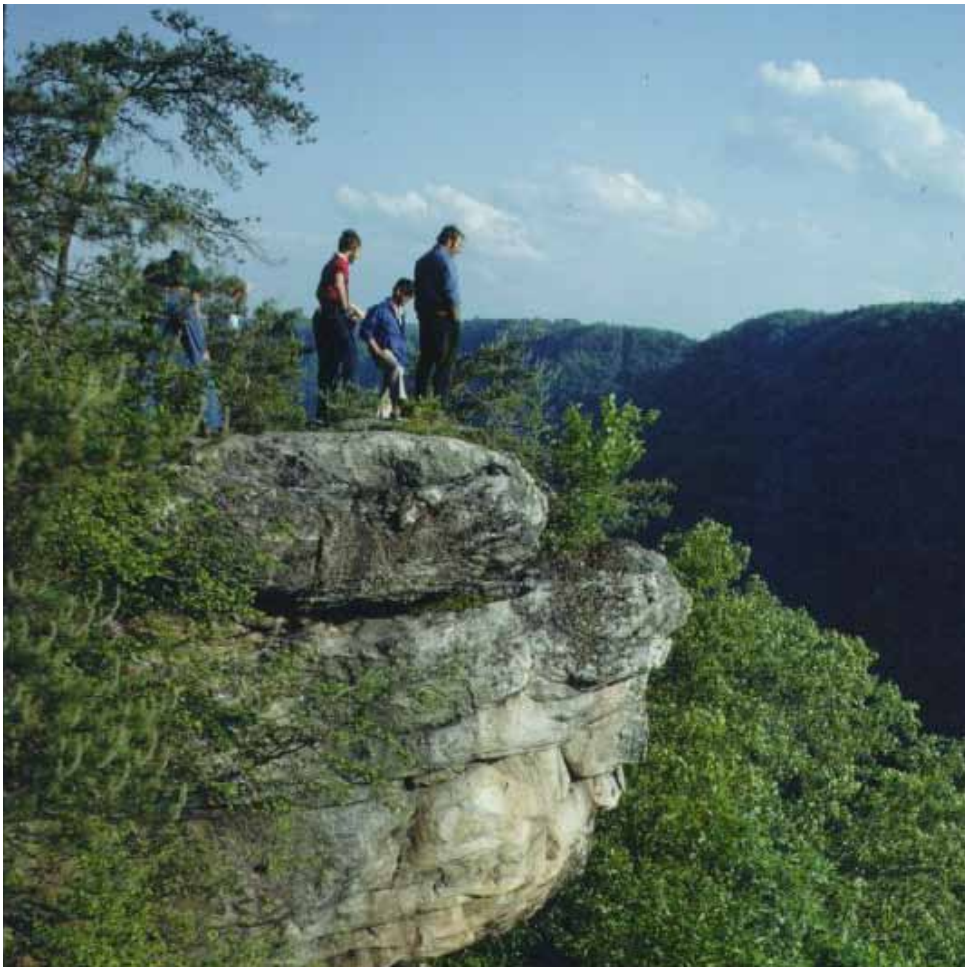
"for the purpose of conserving and interpreting outstanding natural, scenic, and historic values and objects in and around the New River Gorge and preserving as a free-flowing stream an important segment of the New River in West Virginia for the benefit and enjoyment of present and future generations"

The earliest discussion regarding creation of a park to protect the New River and its gorge began in the late 1950s. Some residents of communities near the park believed that a national park designation for the park was needed to protect the park's resources and would at the same time enhance the area's tourism appeal with potentially significant economic benefits to southern West Virginia.

While there was strong local support for a new national park in the region, the real effort to protect the New River came as a result of a major conservation effort upstream in Virginia and North Carolina. The controversy focused on a series of proposed pump storage dams on the New River. Many West Virginians were strongly opposed to the proposed dams because they would have significantly altered river flows downstream. In 1974, this effort led to the formation of the West Virginia Chapter of the National Coalition to Save the New River and to creation of the New River Gorge National Park Committee. These groups were subsequently instrumental in promoting public support for the 1976 addition of the New River in North Carolina to the National Wild and Scenic River System, bringing to an end the proposals for energy development projects on the river upstream.

The conservation effort then turned to the West Virginia section of the New River. A number of key community leaders emerged from the existing river conservation groups. Working together for another two years they built the support needed for the park in the local communities along the river leading ultimately to creation of New River Gorge National River.

Subsequent to the original 1978 enabling legislation a number of additional pieces of legislation further defined the NPS mission at New River Gorge National River and provided for several minor boundary adjustments (see appendix C).



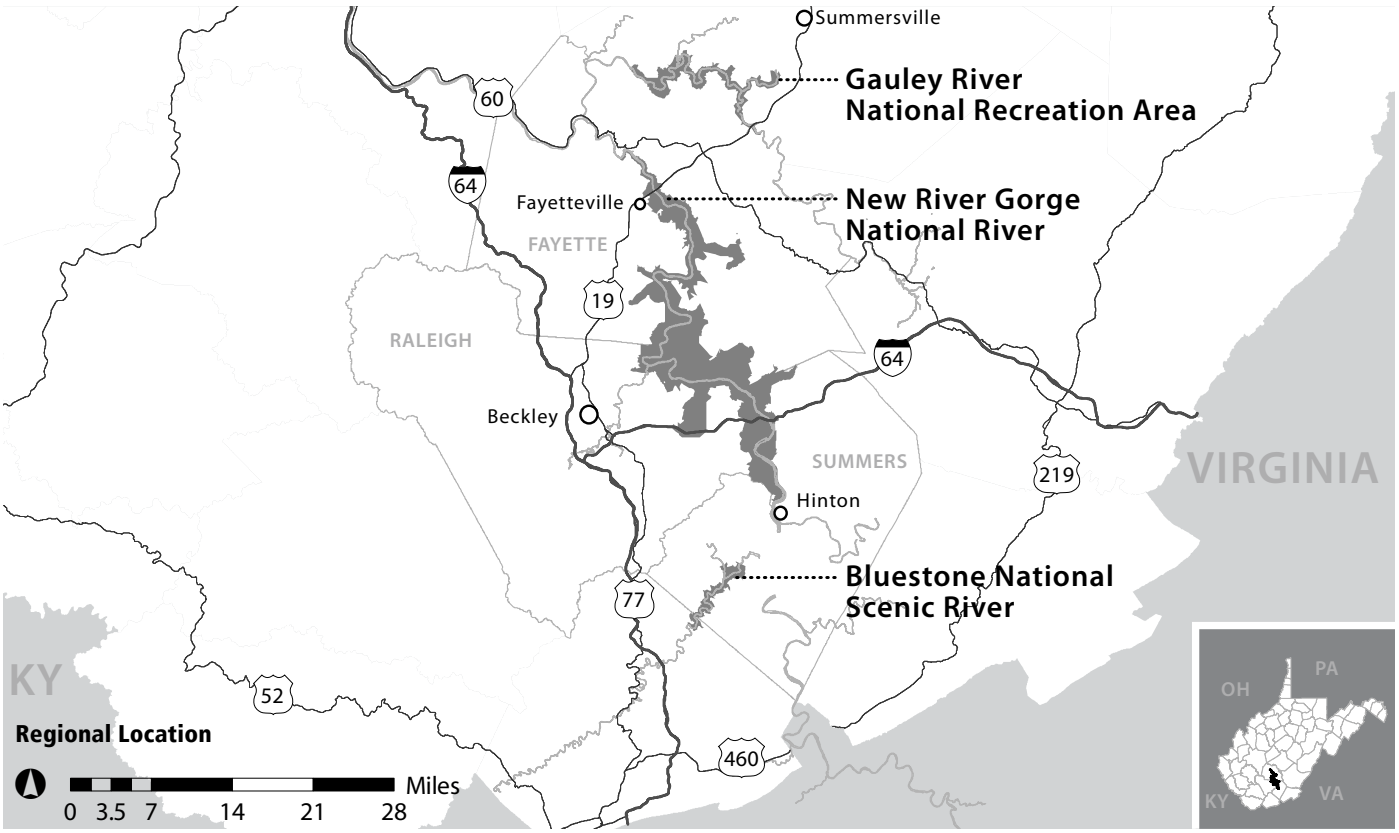
Standing on an overlook of Endless Wall in the lower gorge, advocates for the park's establishment enjoy the view. (Photo: not known)

PARK BOUNDARY, SIZE AND OWNERSHIP

The authorized boundary for New River Gorge National River currently encompasses 72,186 acres within a 53-mile corridor along the New River that extends from the city of Hinton on the south to the upstream limit of Hawks Nest State Park on the north. The park includes most of the 62,000 acres identified in the park's 1978 enabling legislation plus land added through four subsequent Congressionally-authorized boundary adjustments. In 1986, Congress authorized addition of 10 acres for constructing the Glen Jean Headquarters Complex (P.L. 99-590). Other modifications in 1988, 1996, and 2002 were made to protect scenic resources and to facilitate better park management (P.L. 100-534, P.L. 104-333, and PL 107-356). Since 1978 the NPS has acquired 53,605 acres from willing sellers within the park boundary and has secured conservation easements on another 164 acres.

REGIONAL CONTEXT

New River Gorge National River is located in the Appalachian Mountains of southern West Virginia. Nine mountain counties compose the southern West Virginia region, including Raleigh, Mercer, Fayette, Greenbrier, Monroe, McDowell, Nicholas, Wyoming, and Summers. The park encompasses land within Raleigh, Fayette, and Summers Counties and adjoins the cities of Beckley and Hinton and the town of Fayetteville. Beckley is the largest city in the region and is its major economic and cultural center. Major roads providing access to the region converge in Beckley, including the West Virginia Turnpike (I-77/I-64), U.S. Route 19, and Interstate 64 (I-64). Both U.S. Route 19 and I-64 pass through New River Gorge National River just outside of Beckley.



From top:

The town of Hinton is the southern gateway to the park and served as an historic railroad center. Today, community members and visitors celebrate the annual Railroad Days Festival in October of each year. (Photo: NPS/Richard Segars)

Gauley Season brings thousands to boat and raft the world class whitewater of the Gauley River. The popular Sweets Falls provides boaters a good vantage point to enjoy lunch. (Photo: WRT/E. Clarke)

Southern West Virginia has undergone considerable change in recent years. Through the early to mid-20th century, the region boomed as mining companies brought in workers to mine the rich coal deposits of the Kanawha, New River, Pocahontas, and Winding Gulf coal fields. New towns grew up and the region prospered. By the mid-20th century, the more accessible coal deposits were exhausted and the coal industry began its decline. As jobs in the mining industry declined so did the region's population. Struggling to maintain its communities and quality of life, the region in recent years has sought to develop new industries, with a major effort aimed at capitalizing on the region's natural beauty, cultural heritage, and recreation potential to become a major tourist destination in the Appalachian Mountains.

Despite its industrial heritage, southern West Virginia remains "wild and wonderful". Much of the area is densely forested rugged terrain, with free-flowing streams and rivers that cut through the Appalachian plateau forming some of the most beautiful river canyon scenery in the eastern United States. The New River flows north through the region converging with the Gauley River to form the Kanawha River at Gauley Bridge in Fayette County. The Greenbrier River is a major tributary to the New River. Recreation opportunities are extensive within a network of public recreation lands and natural areas. Three national park units, ten state parks, and nine state forests are located within the region. Sections of the Monongahela National Forest lie at its eastern edge in Greenbrier and Nicholas Counties. The Gauley River and the New River offer some of the best whitewater paddling opportunities in the United States.

Many cultural heritage sites tell the stories of the region's industrial and social history. Six counties are within the National Coal Heritage Area, recognized as of national historical significance for its contribution to the industrialization of the United States. Two national scenic byways – the Coal Heritage Trail and the Midland Trail – wind through the mountains and valleys.

NATURAL RESOURCES

Physiography, Geology, and Soils

New River Gorge National River is located in the Kanawha section of the Appalachian Highlands. The dramatic New River Gorge – over 1000 feet deep – is the most prominent physiographic feature at the park. Size and topographic relief of the gorge make it an outstanding, nationally significant natural phenomenon. Cutting 66 miles through the Appalachian Plateau, the new River Gorge exposes 3,280 feet of rock representing 60 million years of near continuous geologic history from the mid-Mississippian (~340 million years before present (MYBP)) through upper Pennsylvanian (~280 MYBP).

According to geological records, the New River was the main headwater's branch of an ancient watercourse called the Teays River. The Teays River flowed west to an immense inland sea that covered the central part of North America during the Mesozoic Era. Because the New River existed before the Appalachian Mountains, it was able to cut into them as fast as they were uplifted, thus maintaining the river's ancient course. The New River is the only river that cuts through the Appalachian Mountains instead of draining from or around them.

The gorge cuts through several geologic formations, composed predominantly of sandstones and shales of the Pennsylvanian and the Mississippian Periods. Geologic interpretations of the rocks and geological phenomenon associated with the gorge indicate that the New River could be as young as three million years or as old as 320 million years. If the New River is 320 million years old, it would be the second oldest river in the world, second only to the Nile in Egypt or to the Finke in Australia. Despite questions regarding the age of the New River, it is probably one of the oldest rivers in the Appalachians.

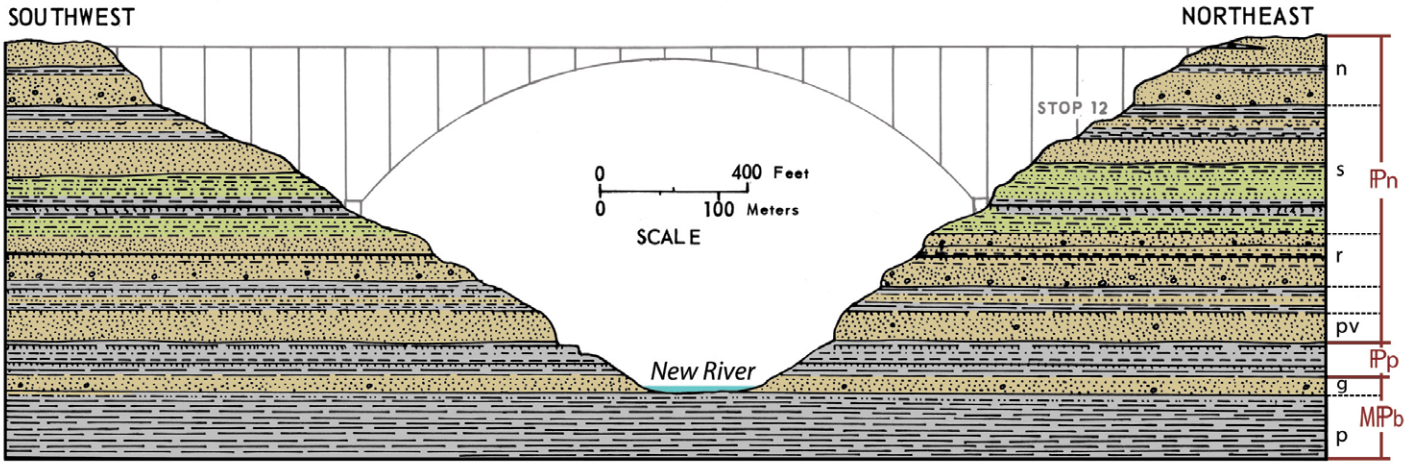
Throughout the gorge are diverse geologic features formed over time by complex geologic processes:

- Nuttall Sandstone creates a prominent cliff feature in the northern reach of the gorge on river right.[1] A large, nearly continuous outcrop called "Endless Wall" is about 11 miles in length and contains over 1,000 named climbing routes offering recreational opportunities to climbers due to its tough lithology and southerly exposure. The Nuttall Sandstone also outcrops on river left forming discontinuous cliffs. Other cliff features include cliffs in the middle gorge derived from the Raleigh Sandstone and some discontinuous cliffs along Meadow Creek derived from the Pineville Sandstone.

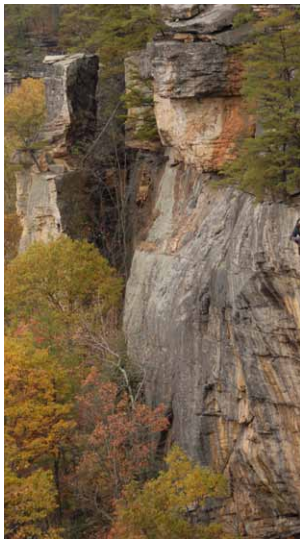
The New River Gorge Bridge stands 876 feet tall and offers an amazing view of the gorge. (Photo: NPS/Gary Hartley)

[1]River right is on the viewer's right when looking downstream; river left is on the viewer's left when looking downstream.

Geologic Cross Section



Cross section of New River Formation (ℙ) at New River Bridge. **n**: Nuttall Sandstone Member; **s**: Sewell coal bed; **r**: Raleigh Sandstone Member; **pv**: Pineville Sandstone Member; ℙp: Pocahontas Formation; MℙB : Bluestone Formation; **g**: Glady Fork Sandstone Member; **p**: Pride Shale Member.



From left:

Above the coal mining town of Nuttallburg, the Nuttall Sandstone cliffs are a unique sandstone type that is 98% quartz. (Photo: WRT/E. Clarke)

Along the lower gorge, Endless Wall provides spectacular views of rock cliffs where the New River cut through the Appalachian Plateau. (Photo: NPS/Gary Hartley)

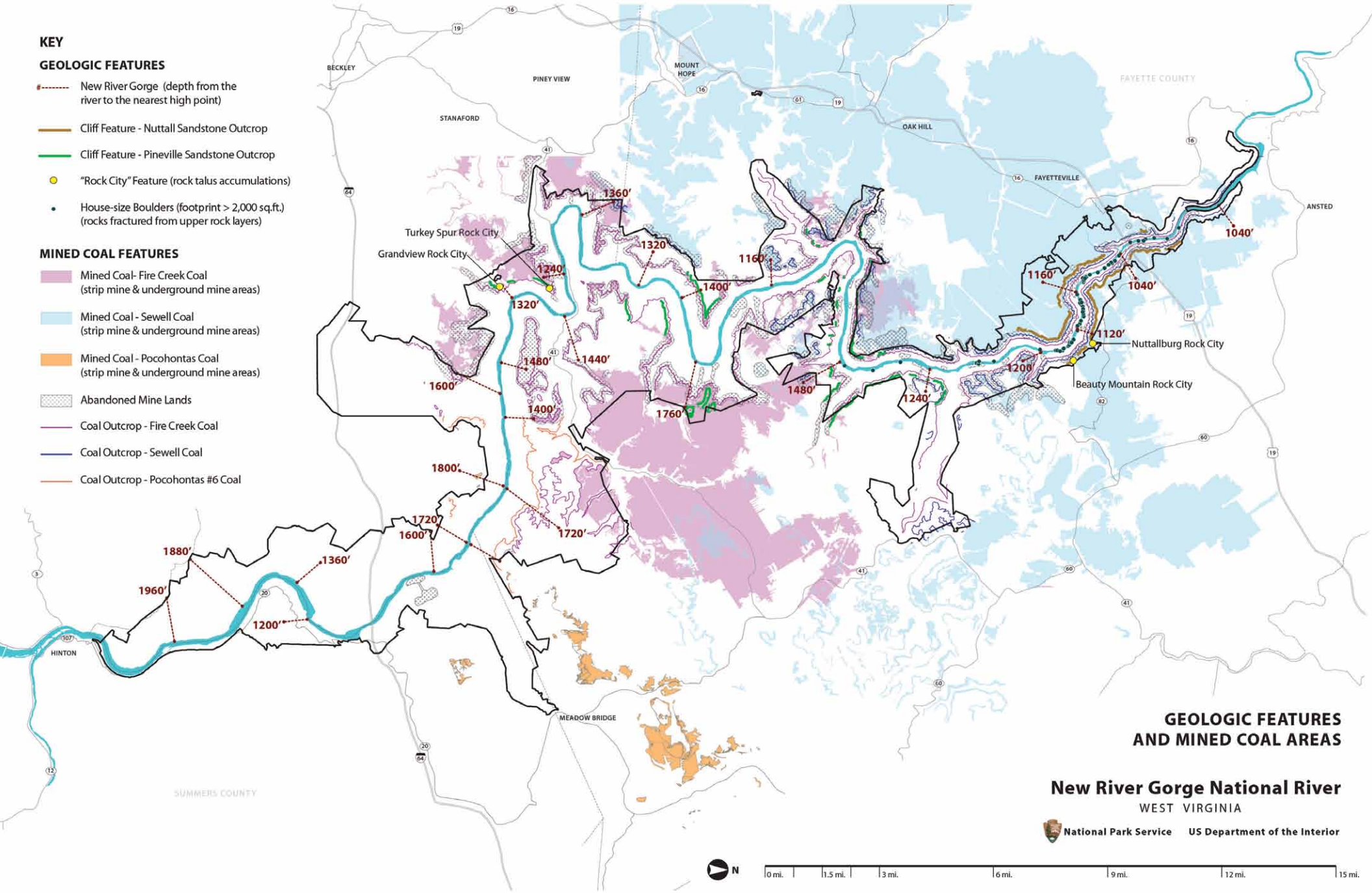
An overhang on the trail to the Nuttallburg Headhouse illustrates unique features of the thicker sandstone. (Photo: WRT/E. Clarke)

- Rock cities are rock talus accumulations that form when large sandstone blocks cleave away from their parent formation – generally the Nuttall and the Raleigh Sandstones – and then transport slowly down to the river. Rock cities occur at several locations within the gorge, as well as along the cliff outcrop at Beauty Mountain.
- Large boulders, derived from Nuttall Sandstone, have broken away from the cliff face and over time moved to the river. Today, 72 house-size boulders (basal area equal to or greater than 2,000 square feet) lie in the New River, largely between Thurmond and Fayette Station, as well as at Turkey Spur. These provide hydraulic shaping for many of the river's rapids.
- Rock overhangs occur throughout the gorge, particularly under thicker sandstone members.
- Spheroidal weathering of the soft shales of the Bluestone Formation display the unique power that surface water runoff has to shape rock.

Coal-bearing sediments, exposed throughout the gorge, were mined historically to yield some of the best bituminous coal in the world. The configuration of the gorge permitted the coal seams, facilitating coal removal, and leading to the industrialization of the area in the 19th century. Coal extracted from the gorge is bituminous and low in sulfur content, making it easily converted to coke. Because of the low sulfur content of the coal, acid mine drainage is not a serious problem in the gorge. One seam of coal found in the area – Sewell – is of global significance because of its low sulfur content, few metal impurities, and high heat value. Today no active mining occurs in the park. There are 115 abandoned mines, most of which are unreclaimed. Of the NPS owned lands within the park boundary, mineral rights for coal are predominately owned by the NPS "in fee simple" meaning that the minerals (including coal) are in ownership by the federal government. On lands owned by the NPS where mineral rights have not been secured, surface mining would be precluded by the park's authorizing legislation and other applicable statutes, regulations, and NPS policies.

The U.S. Geological Survey has predicted that there are 32 billion cubic feet of natural gas located in the deeper unexplored plays beneath the New River Gorge. In 2006 there were ten active natural gas wells within the park listed with the WV DEP Office of Oil and Gas. Gas producers in the region have no known plans to develop new wells in the park and speculation is that unless natural gas prices go up significantly the deeper plays needed for new wells in the park would be uneconomical.

Currently there is no known oil production in or near the park. Marcellus shale underlies some areas and is of potential interest to the oil industry.


KEY
GEOLOGIC FEATURES
New River Gorge (depth from the river to the nearest high point)
Cliff Feature - Nuttall Sandstone Outcrop
Cliff Feature - Pineville Sandstone Outcrop
"Rock City" Feature (rock talus accumulations)
House-size Boulders (footprint > 2,000 sq.ft.) (rocks fractured from upper rock layers)
MINED COAL FEATURES
Mined Coal- Fire Creek Coal (strip mine & underground mine areas)
Mined Coal - Sewell Coal (strip mine & underground mine areas)
Mined Coal - Pocohontas Coal (strip mine & underground mine areas)
Abandoned Mine Lands
Coal Outcrop - Fire Creek Coal
Coal Outcrop - Sewell Coal
Coal Outcrop - Pocohontas #6 Coal
BECKLEY
PINEY VIEW
MOUNT HOPE
STANAFORD
OAK HILL
FAYETTE COUNTY
FAYETTEVILLE
ANSTED
Turkey Spur Rock City
Grandview Rock City
Nuttallburg Rock City
Beauty Mountain Rock City
HINTON
MEADOW BRIDGE
SUMMERS COUNTY
1360′
1320′
1160′
1400′
1240′
1320′
1480′
1440′
1600′
1400′
1760′
1480′
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1880′
1360′
1960′
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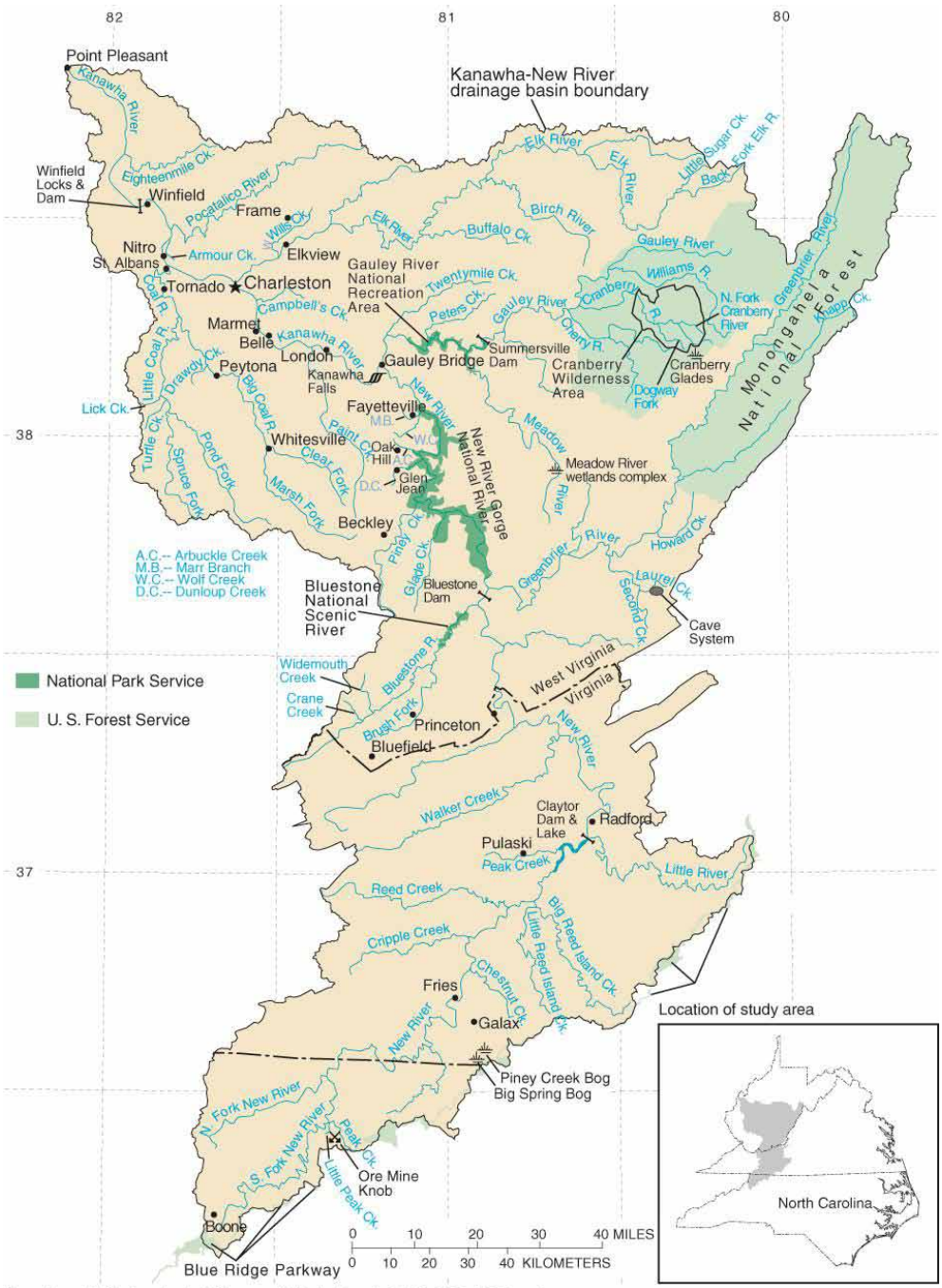
N
0 mi.
1.5 mi.
3 mi.
6 mi.
9 mi.
12 mi.
15 mi.
GEOLOGIC FEATURES AND MINED COAL AREAS
New River Gorge National River
WEST VIRGINIA
National Park Service
US Department of the Interior

The New River and its Floodplains

Originating near Blowing Rock in the Blue Ridge Mountains of North Carolina, the New River flows northward for approximately 250 miles through North Carolina, western Virginia, and south-central West Virginia to Gauley Bridge where it joins the Gauley River to form the Kanawha River. The Kanawha River flows through Charleston and eventually drains into the Ohio River, a tributary to the Mississippi River. The New River watershed encompasses approximately 5,274 square miles, including 756 square miles in North Carolina, 3,044 square miles in Virginia, and 1,474 square miles in West Virginia. The two major tributaries to the New River – the Greenbrier and the Bluestone – flow into the New River above Hinton, a few miles upstream of the park.

Kanawha - New River Drainage Basin



Base from U.S. Geological Survey digital data, 1:2,000,000, 1992 and National Park Service digital data, 1:24,000, 1996

The 53-mile stretch of the New River within the park is composed of three subreaches of similar slope, geometry, and roughness. Approximately 106 perennial and intermittent streams flow into the river within the park. Major tributaries include Glade Creek, Piney Creek, Dunloup Creek, Wolf Creek, Laurel Creek (near Sandstone), Lick Creek, Meadow Creek, Laurel Creek (near Quinnimont), Manns Creek, and Mill Creek.

The New River within New River Gorge National River is preserved as a free-flowing stream between two impoundments – Bluestone Lake upstream and Hawks Nest Lake downstream. Flow is regulated by Bluestone Dam, built in the late 1940s and operated by the U.S. Army Corps of Engineers (US ACE) for flood control, recreation, and low flow enhancement. Bluestone Dam is generally managed on a "run-of-the- river" (outflow equals inflow) basis with minimal retention time, except when additional waters are retained to minimize flooding. On a daily basis, the flows discharged through Bluestone Dam appear to correspond with the natural flow pattern. Hourly fluctuations in river flow result from the hydroelectric generation activity at the nonfederal Claytor Dam (farther upstream) in combination with the US ACE's actions to maintain a relatively constant recreational pool within Bluestone Lake.

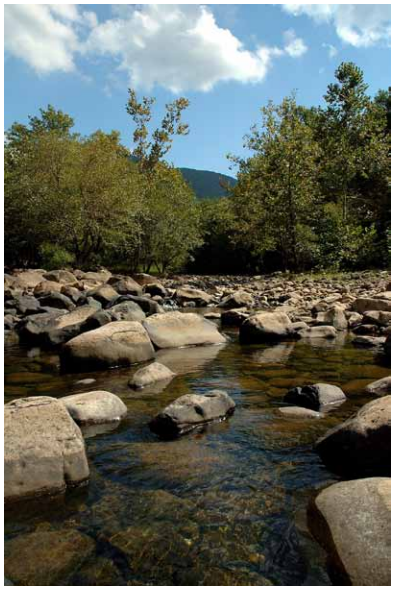
Since construction of the dam, the historic periodic flood regime on the New River has been largely eliminated. Both the magnitude and the frequency of extreme high floods have been reduced. The 100-year discharge at Hinton has been lowered from 250,000 ft3/second to 150,000 ft3/second. The U.S. Geological Survey in cooperation with the NPS has studied the frequency and magnitude of flooding in the park on the New River and portions of Wolf Creek, Craig Branch, Manns Creek, Dunloup Creek, and Mill Creek, revealing the following general characteristics of the river's floodplain:

- between Hinton and Meadow Creek the river has a floodplain on one bank that is approximately 1,500 feet wide
- between Meadow Creek and Sewell the river lacks a distinct floodplain
- between Sewell and Fayette there is no floodplain because the streambanks are the valley walls

Since 1994 the NPS has used the more detailed findings from this study regarding river discharges, water surface elevations, and velocities for the 2-, 25- and 100-year flood-recurrence intervals for planning and designing park facilities along the New River. No inundation map or floodway was determined.

Water Quality

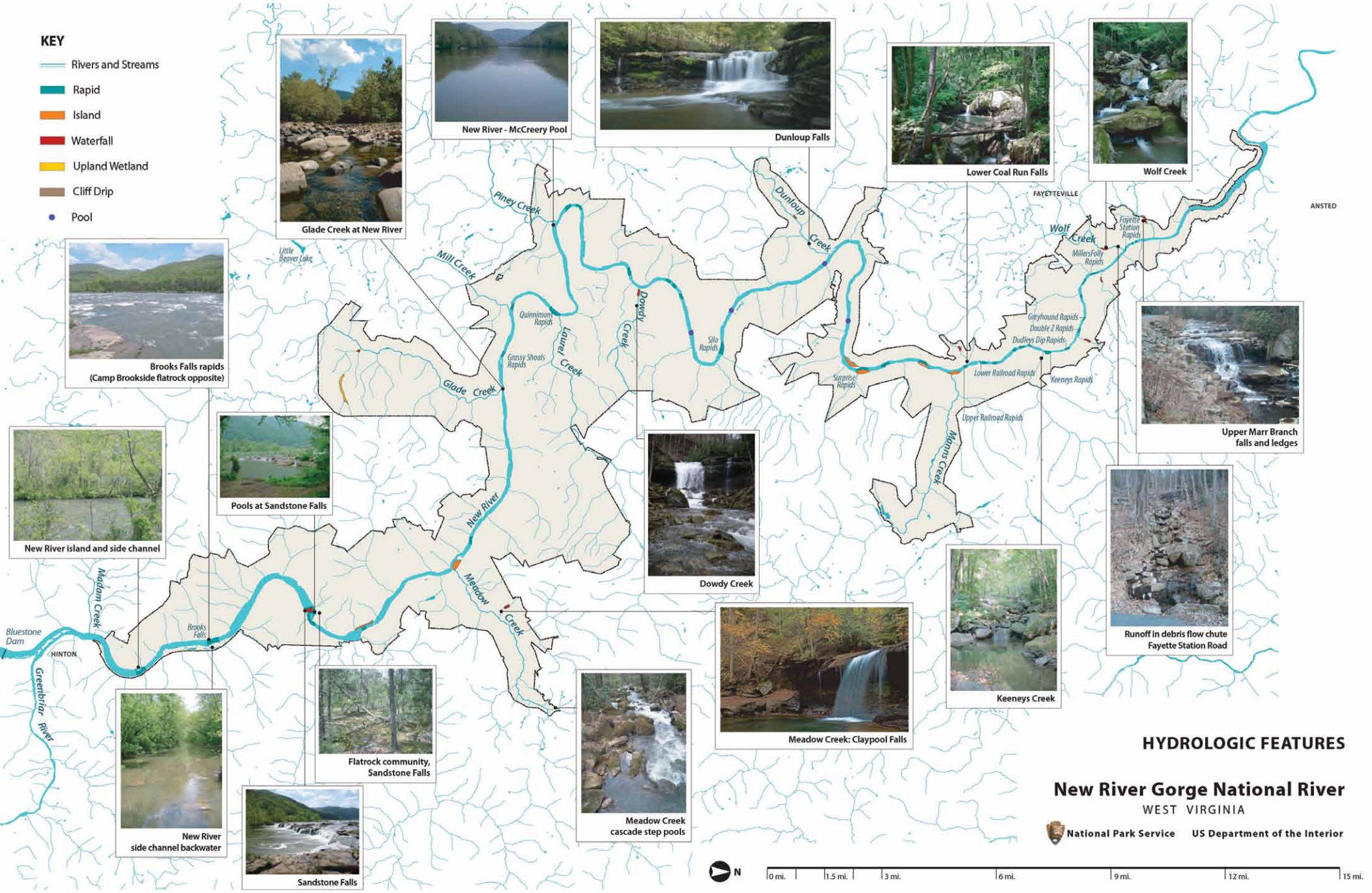
Water quality in the New River is generally satisfactory for water contact recreation such as swimming, boating, and fishing, although the river is adversely impacted by fecal coliform contamination, sedimentation, acidic runoff, trace metals, and trace chemical elements. Because of occasional fecal coliform concentrations in excess of water quality standards, the state of West Virginia has designated the river as impaired for its entire length in the park. River stretches are affected at the mouths of polluted tributaries and for some distance downstream of polluted tributaries, affecting many popular access sites for recreational activities such as whitewater boating and angling. Water quality is impacted primarily during periods of high turbidity, 48-hour precipitation, and high discharge events.



From top:

The lower sections of Glade Creek features calm pools that provide fisherman a good spot to fish for trout. (Photo: NPS/Gary Hartley)

While Dowdy Creek is a popular site for boaters, it also features falls where visitors can relax and enjoy the view. (Photo: NPS/Gary Hartley)

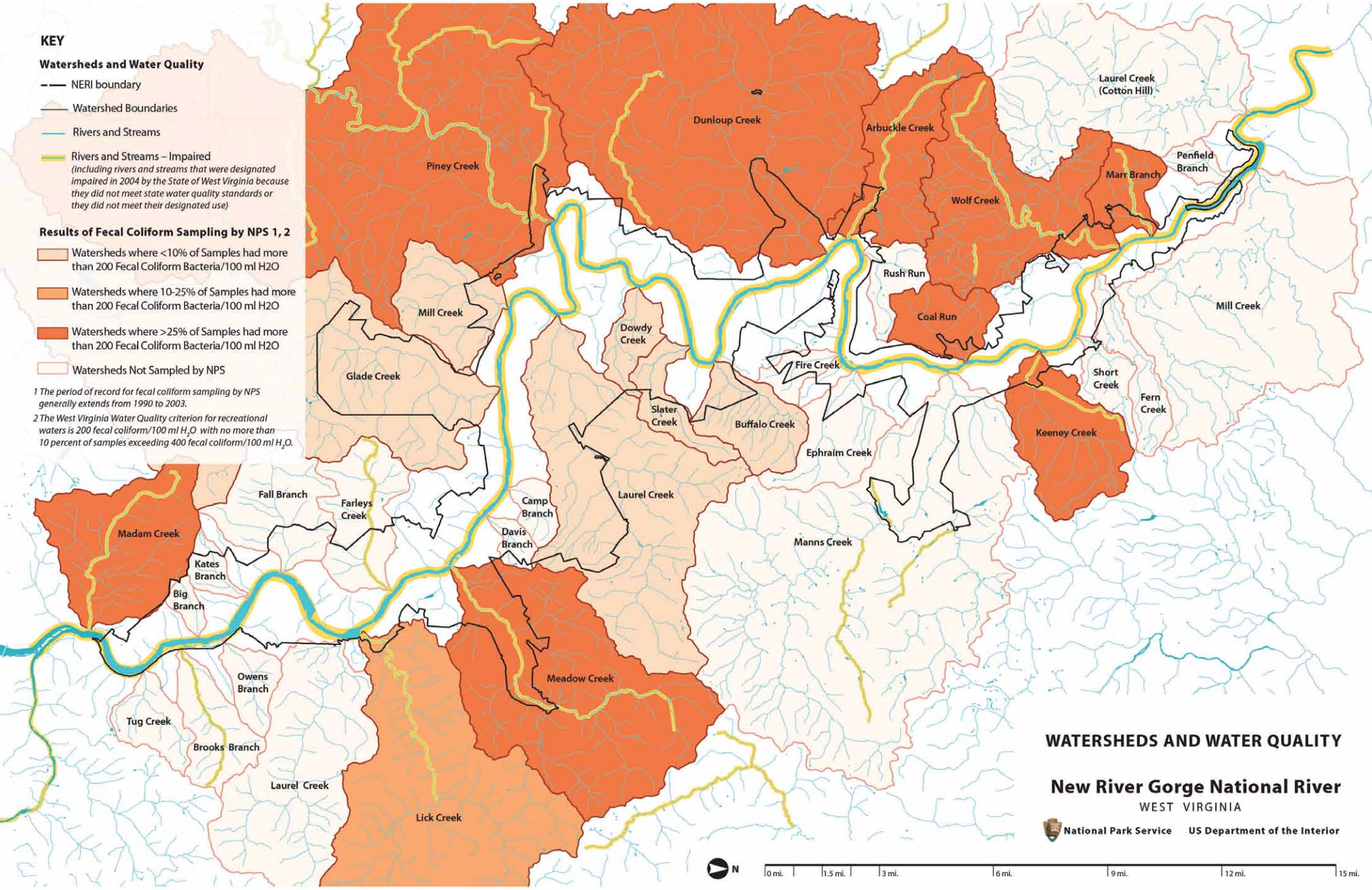


HYDROLOGIC FEATURES

New River Gorge National River

WEST VIRGINIA

National Park Service US Department of the Interior


KEY
Watersheds and Water Quality
NERI boundary
Watershed Boundaries
Rivers and Streams
Rivers and Streams – Impaired
(including rivers and streams that were designated impaired in 2004 by the State of West Virginia because they did not meet state water quality standards or they did not meet their designated use)
Results of Fecal Coliform Sampling by NPS 1, 2
Watersheds where <10% of Samples had more than 200 Fecal Coliform Bacteria/100 ml H2O
Watersheds where 10-25% of Samples had more than 200 Fecal Coliform Bacteria/100 ml H2O
Watersheds where >25% of Samples had more than 200 Fecal Coliform Bacteria/100 ml H2O
Watersheds Not Sampled by NPS
1 The period of record for fecal coliform sampling by NPS generally extends from 1990 to 2003.
2 The West Virginia Water Quality criterion for recreational waters is 200 fecal coliform/100 ml H_2O with no more than 10 percent of samples exceeding 400 fecal coliform/100 ml H_2O.
Laurel Creek (Cotton Hill)
Dunloup Creek
Arbuckle Creek
Penfield Branch
Marr Branch
Wolf Creek
Piney Creek
Rush Run
Coal Run
Mill Creek
Mill Creek
Dowdy Creek
Fire Creek
Glade Creek
Short Creek
Fern Creek
Slater Creek
Buffalo Creek
Keeney Creek
Ephraim Creek
Fall Branch
Farleys Creek
Camp Branch
Laurel Creek
Madam Creek
Davis Branch
Manns Creek
Kates Branch
Big Branch
Owens Branch
Meadow Creek
Tug Creek
Brooks Branch
Laurel Creek
Lick Creek
N
0 mi.
1.5 mi.
3 mi.
6 mi.
9 mi.
12 mi.
15 mi.
WATERSHEDS AND WATER QUALITY
New River Gorge National River
WEST VIRGINIA
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Several tributaries to the New River are impaired by improper treatment and disposal of domestic sewage. Wastewater treatment plants discharge several million gallons of treated wastewater per day into tributaries of the New River within the park. Hydraulic overloads and poorly designed or maintained residential wastewater systems also contribute pollutants to tributaries. Fecal coliform bacteria contamination is found at varying levels in every tributary, with higher concentrations frequently exceeding West Virginia water quality standards. In particular, Madam, Piney, Dunloup, Arbuckle, Coal Run, Marr Branch, Keeney, and Wolf Creeks have high levels of fecal coliform bacteria. This is the most pervasive water resource issue in the park.

Some tributary streams are also affected by organic industrial contaminants and acid mine drainage. Tributaries with mine runoff problems include Rush Run, Piney Creek, Meadow Creek, Wolf Creek, Arbuckle Creek, Dunloup Creek, and Peters Creek. The state of West Virginia has identified Dunloup Creek as an impaired waterway along its entire length due to aluminum contamination from an unknown source. Rush Run is impaired due to abandoned mine discharge. In several other tributaries metal laden waters and sediment from barren unreclaimed mine spoils reduce habitat quality.

From top:

A tributary of the New River, water from Wolf Creek originates from an old mine drainage. (Photo: NPS/Gary Hartley)

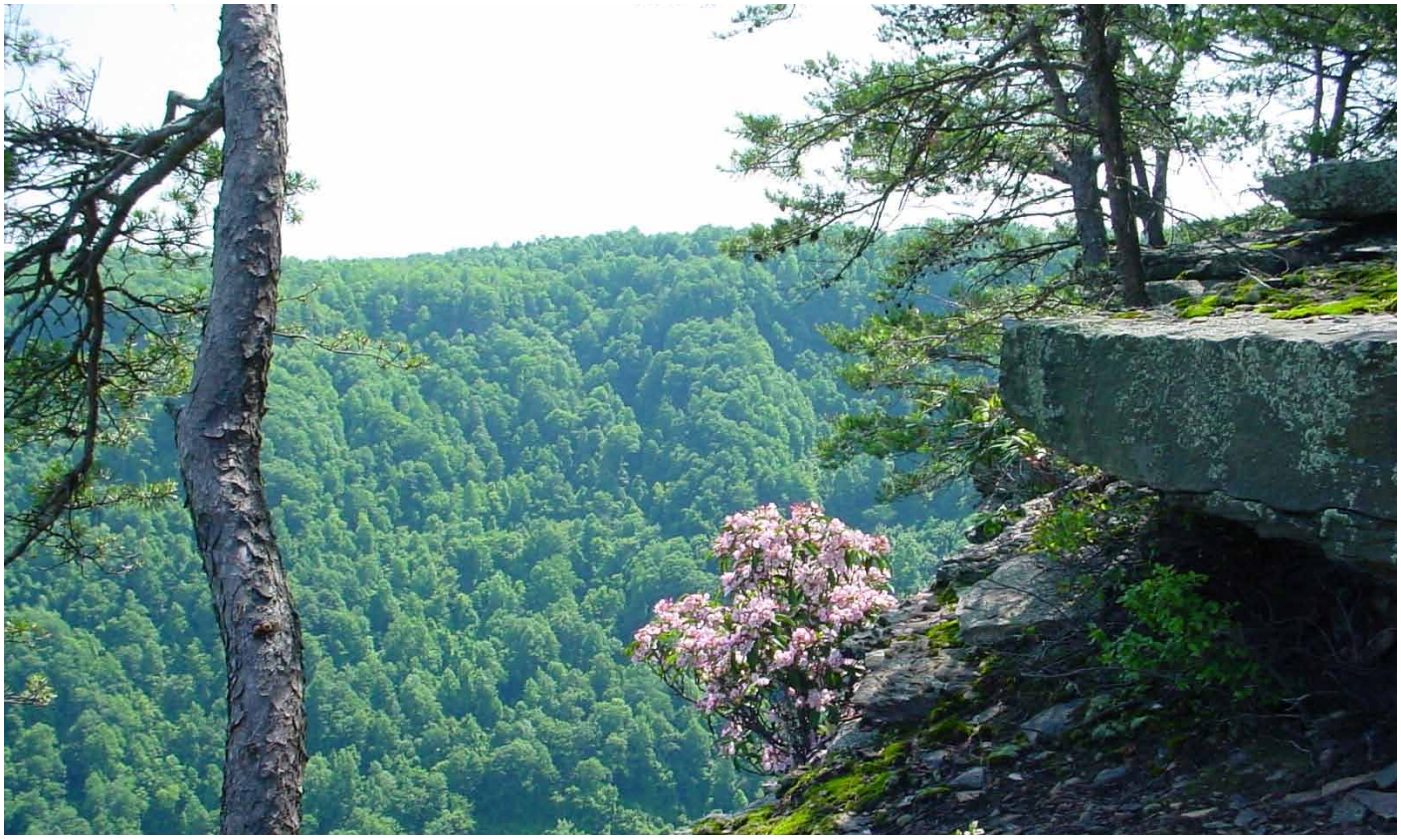
The forests of New River Gorge National River are the home to the most diverse flora of any river gorge in central and southern Appalachia. (Photo: NPS/Gary Hartley)

The Park's Forest

The expanse of mixed-mesophytic forest in which New River Gorge is located is the largest remaining area of midlattitude forest in the world, making it a nationally significant resource. Within the park the continuous span of mixed-deciduous forest (composed of both oak-hickory and mixed-mesophytic forest types) is approximately 60 miles long by two miles wide, one of the largest in the nation. Approximately 84 percent of the land cover is forested and 65 percent of the forestland is interior forest. By comparison, only 45 percent of the forestland in West Virginia would be classified as interior forest (based on the same scale of analysis).

Significant expanses of the park's forest remain largely unfragmented by roads, trails, utility corridors, or developed land uses. These blocks of unfragmented forest are largely intact natural landscapes and are of high conservation priority because they contain a diversity of plant species and support a significant community of forest-interior birds. Many rare vegetation communities are included with the large unfragmented forest blocks.

Forty-one forest community types are present, representing 39 forest associations. These include 16 upland forest and woodland types, 15 riparian types, three headwater wetlands types, one non-vascular type, one sparse vegetation type, and three cultural types (kudzu patch, old field, and pine plantation).



Rim-rock pine habitat is often found along the tops of the miles of sandstone cliffs and rock outcrops throughout the park. (Photo: NPS/ Gary Hartley)

UPLAND DECIDUOUS FOREST. Upland deciduous forest is the predominant natural vegetation within the park. Three upland deciduous forest associations dominate, intergrading with one another and generally correlating with soil moisture and fertility gradients affected by topographic position, aspect, and geology:

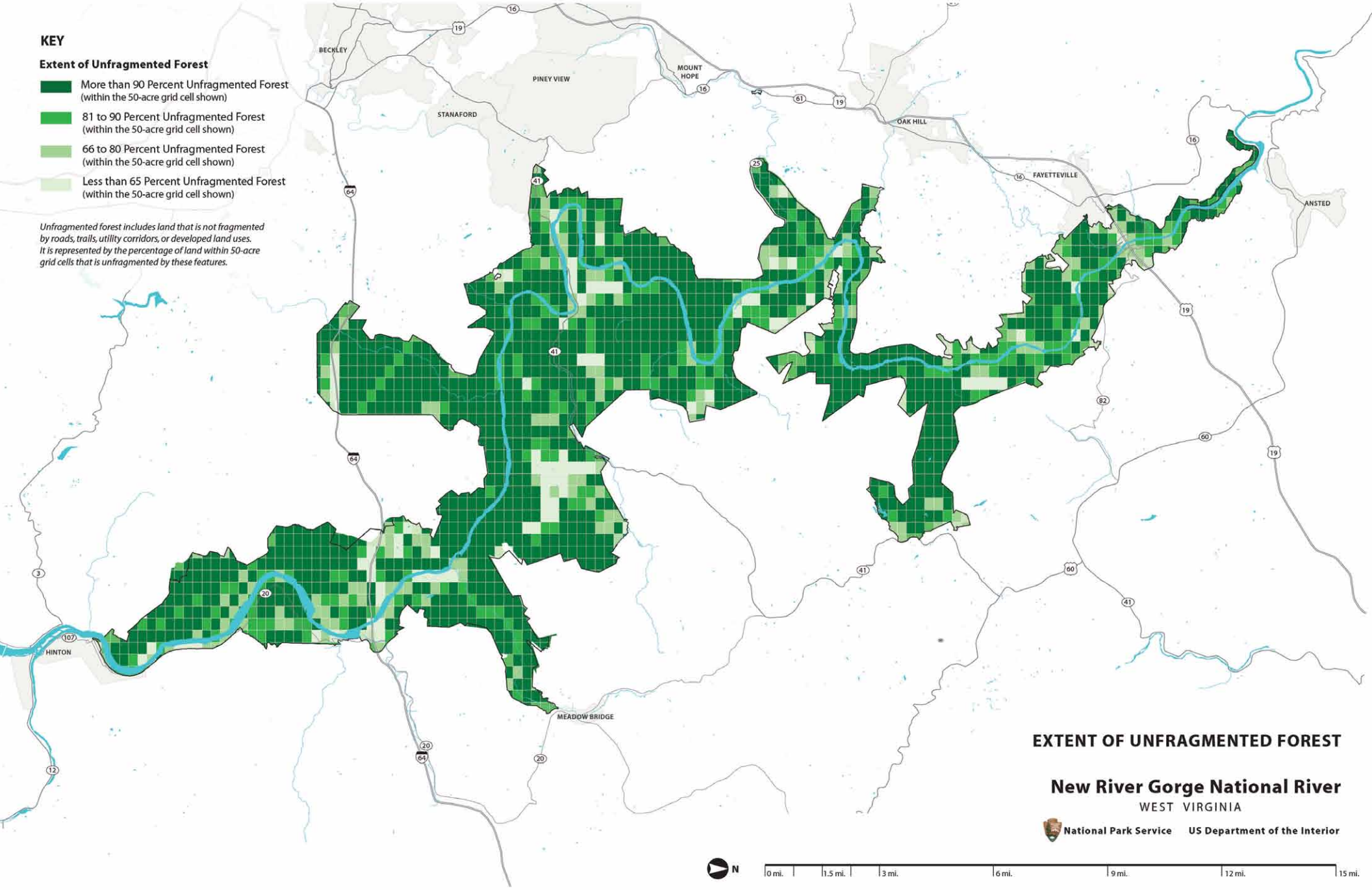
- sugar maple–buckeye–basswood forest occupies moist, fertile sites on concave, lower, and northerly facing colluvial gorge slopes on shale derived soils
- oak–hickory forest occupies drier, less fertile sites and predominates on plateaus with residual soils derived primarily from sandstone
- oak–hickory–sugar maple forest is intermediate and predominates on southerly facing, convex, and upper colluvial gorge slopes, on northerly aspects, and on plateaus

Three additional deciduous forest associations occur less extensively in the park:

- oak–ericad forest occurs on drier, less fertile sites
- Chinquapin oak–black maple forest is an uncommon association restricted to areas with calcareous bedrock
- yellow birch cold cove forest is an uncommon association restricted to deep canyons with low solar exposure

Less abundant than deciduous forests are natural upland forests with a significant conifer component that occur in more specialized habitats, including:

- cliff top Virginia pine forest and cliff top pitch pine woodland on southerly slopes
- hemlock–sweet birch–tulip poplar–giant rhododendron forest and the related deciduous tree–giant rhododendron forest are fairly abundant types which occur in moist sites (coves or ravines) with acidic, low fertility soils



EXTENT OF UNFRAGMENTED FOREST

New River Gorge National River

WEST VIRGINIA

National Park Service US Department of the Interior

Plant communities in the park are generally young (<75 years old), reflecting past land use disturbance and natural disturbance regimes (e.g., flooding, landslides). Almost all of the park was heavily impacted by logging, mining, and other human development in the late 1800s through the 1900s. Extensive canopy disturbance resulted in an increase in cover by early successional and shade tolerant tree species. Following recovery of forest canopy cover, succession continues as shade tolerant species replace shade intolerant species. Forest soil moisture, organic matter, and fertility is generally increasing as time passes since fire or other human-caused disturbance occurred. Seed dispersal acts as a slow agent to reintroduce shade tolerant understory plant species that were displaced by canopy removal. These processes occur at the stand level and at the landscape level.

In the absence of fire or other human-caused canopy and ground disturbance the aerial cover of the park's upland forest and woodland associations is likely to change in generally predictable ways. Areas of forest and woodland associations adapted to more xeric conditions (cliff top Virginia pine forest, cliff top pitch pine woodland, oak/ericad forest, oak-hickory forest) are likely to decrease over time. Areas of forest and woodland associations adapted to more mesic conditions (sugar maple–buckeye–basswood forest, oak–hickory–sugar maple forest, deciduous tree/giant rhododendron) are likely to increase. Boundaries between these associations are likely to move upslope. Areas of hemlock–sweet birch–tulip poplar forest–giant rhododendron forest would be expected to increase but *Tsuga canadensis* (hemlock) is currently threatened by *Adelges tsugae* (hemlock wooly adelgid), an exotic insect pest.

RIPARIAN AREAS. Riparian areas cover a small area within the park but contributes significantly to its overall biological diversity. These areas are some of the most diverse, dynamic, and complex biophysical habitats in the terrestrial environment. Fifteen riparian associations are classified in the park. Probable reasons for high diversity of species and communities in riparian zones include abundant seed sources, abundant moisture and nutrients, and strong environmental gradients created by variation in flooding intensity and periodicity as affected by elevations. Small headwater wetland areas also contribute significantly to species and landscape diversity.

Successional dynamics of riparian and headwater wetland communities in the park are quite different from those of upland communities. Riparian communities are maintained by a disturbance regime of periodic floods. Flooding can maintain open canopies by removing individual trees or large events can remove entire patches of vegetation. Especially ephemeral riparian vegetation associations include riverscour prairie, riverscour annuals, and lizardtail backwater slough. Successional dynamics and extent of many headwater wetlands are controlled by beaver.

FORESTED DISTURBED AREAS. Semi-natural vegetation has developed in mined areas and in sites cleared by humans and then abandoned. Four successional forest types and additional patches of early successional old field occur within these areas.

RARE VEGETATION ASSOCIATIONS. Several vegetation associations in the park are likely to be globally and/or state rare. Many of these communities contribute significantly to the regional biodiversity of plants and animals in the park, including the dry sandstone cliff, the cliff top-Virginia pine, and juniper-Virginia pine flatrock woodland communities.

Of the park's rare or significant vegetation communities, the juniper-Virginia pine flatrock woodland (high Appalachian flatrock) community is most rare. It is a globally rare ecological community that is composed of locally rare sedges, cedars, pines, and other plants. It occurs in two locations within the park on flat sandstone ledges along the New River and is dependent on the scouring caused by occasional flooding for its long-term integrity.

From top:

The Flatrock Community, contains a rare assemblage of plants found in only a few places along several high-energy Appalachian rivers. (Photo: NPS/Gary Hartley)

The Spray Cliff Community is another example of a unique ecosystem along the New River's shores. (Photo: NPS/Gary Hartley)

This site along the Upper New River illustrates the lush, floodplain of riparian communities that cover a small area within the park and contribute to its overall biodiversity. (Photo: NPS/Gary Hartley)

Vegetation Associations Likely to be Globally and/or West Virginia State Rare

Community Name	Association	Global Rank	West Virginia Rank
Upland Forests and Woodlands			
Chinquapin Oak–Black Maple Forest	*Acer saccharum – Quercus muehlenbergii / Cercis Canadensis* Forest	G4	SNR
Cliff Top Pitch Pine Woodland	*Pinus rigida – Quercus coccinea / Vaccinium angustifolium* Woodland	GNR	SNR
Cliff Top Virginia Pine Forest	*Pinus virginiana – Pinus (rigida, echinata) – (Quercus prinus)/ Vaccinium pallidum* Forest	G4	SNR
Hemlock–Chestnut Oak/ Catawba Rhododendron Forest	*Quercus prinus / Rhododendron catawbiense – Kalmia latifolia* Forest	G3	SNR
Yellow Birch Cold Cove Forest	*Betula alleghaniensis – (Tsuga Canadensis) / Rhododendron maximum / Leucothoe fontanesiana* Forest	G3 G4Q	SNR
Lichen and Sparse Vegetation			
Dry Sandstone Cliff	Appalachian – Alleghenian Sandstone Dry Cliff Sparse Vegetation	GNR	SNR
Riparian Communities			
Black Willow Slackwater Woodland	*Salix nigra – Betula nigra / Schoenoplectus (pungens, tabernaemontani)* Wooded Herbaceous Vegetation	GNA	SNR
Juniper–Virginia Pine Flatrock Woodland	*Juniperas virginiana var. virginiana – Pinus virginiana – Quercus stellata / Amelanchier stolonifera / Danthonia spicata – Melica mutica* Woodland	G2	S1
Lizardtail Backwater Slough	*Peltandra virginica – Saururus cernuus – Carex crinita / Climacium americanum* Herbaceous Vegetation	G2	SNR
Oak–Tulip Poplar/Silverbell Floodplain Forest	*Quercus (alba, rubra, velutina) / Halesia tetraptera* Forest	GNR	SNR
Riverscour Prairie	*Andropogon gerardii – Panicum virgatum – Baptisia australis* Herbaceous Vegetation	G2 G3	SNR
Sycamore–Ash Floodplain Forest	*Platanus occidentalis – Fraxinus pennsylvanica / Carpinus caroliniana / Verbesina alternifolia* Forest	GNR	SNR
Sycamore–River Birch Riverscour Woodland	*Platanus occidentalis – (Betula nigra, Salix spp.)* Temporarily Flooded Woodland	GNR	SNR
Headwater Wetlands			
Forest Seep	*Acer rubrum – Nyssa sylvatica / Ilex verticillata – Vaccinium fuscatum / Osmunda cinnamomea* Forest	G3 G4	SNR

G2 – Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 – Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent or widespread declines, or other factors.

G4 – Apparently secure globally – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

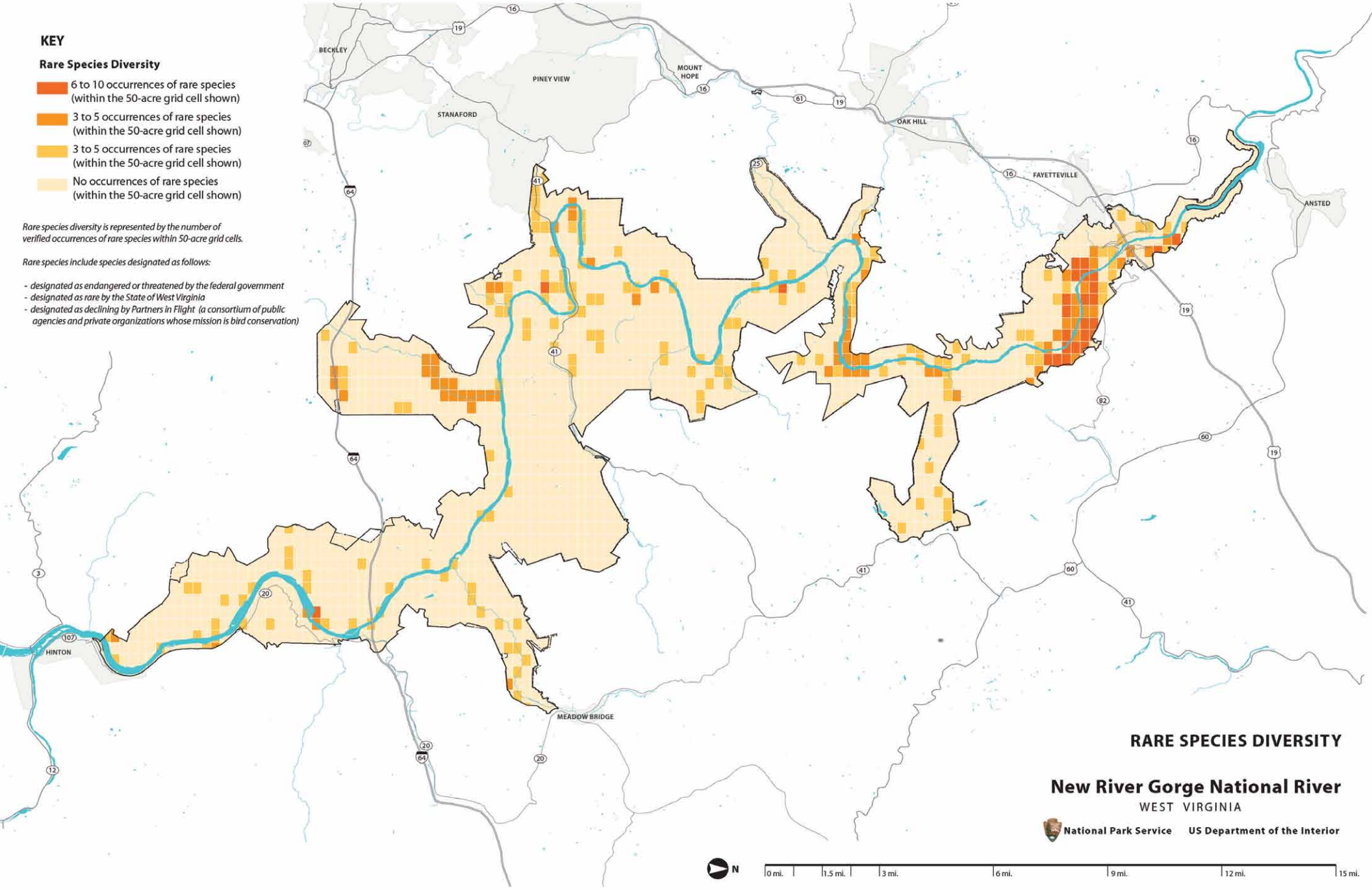
GNA – Not applicable – A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

GNR – Global rank not yet assessed.

S1 – Critically imperiled in state – 5 or fewer occurrences.

SNR – State rank not yet assessed.

Source: Vanderhorst 2007



RARE SPECIES DIVERSITY

New River Gorge National River

WEST VIRGINIA

National Park Service US Department of the Interior

From top:

Volunteers assist park staff with LTEMS (Long Term Ecological Monitoring System) sampling on the New River. A student intern measures a large flathead catfish before releasing it back into the river. (Photo: NPS/Gary Hartley)

A young boy examines fresh water mussels, native to the New River. (Photo: WRT/E. Clarke)

Aquatic Wildlife

NATIVE NONGAME FISH. The New River drainage has a native fish fauna that is distinct from those of the rest of the Ohio River system. The fauna are composed of relatively few native species with a high proportion of natives being endemic (species with their native range restricted to a certain geographic area). The high rate of species native only to the area is primarily due to Kanawha Falls which generally isolates the New River from its neighboring river systems. Seven species of fish are endemic to the New River drainage: bigmouth chub, New River shiner (*Notropis scabriceps*), Kanawha minnow (*Phenacobius teretulus*), fine-scaled saddle (candy) darter (*Etheostoma osburni*), Bluestone sculpin (*Cottus* sp. [undescribed]), Kanawha darter (*Etheostoma kanawhae*), and Appalachian darter (*Percina gymnocephala*). However, only the bigmouth chub (a species of special concern in West Virginia) and the New River shiner have been collected within the boundaries of the park.

NONNATIVE FISH. The New River watershed has an unusually high number of nonnative fish. Forty-seven species of fish in the watershed are native and 43 are nonnative. With 48 percent of its fish fauna being nonnative, the New River system has the largest number and proportion of nonnative fish species among major eastern and central North American drainages. Prior to European settlement, Kanawha Falls was a natural barrier to fish migration; the portion of the New River above the falls was relatively low in fish diversity but had a high rate of endemism. Today, due to nonnative species introductions, non-native species distribution above and below the falls is about equal. Recent research indicates that several species of nonnative fish have expanded their range in the park.

GAME FISH. The New River within the park is one of the most important warm-water fisheries in West Virginia and is one of the most heavily fished areas in the state. The New River contains excellent warm-water fish habitat, with a pool-riffle geomorphic structure, abundant cover, and generally good chemical quality. New River game fish include muskellunge (*Esox masiquinongy*), channel catfish (*Ictalurus punctatus*), flathead catfish (*Pylodictis olivaris*), white crappie (*Pomoxis annularis*), black crappie (*Pomoxis nigromaculatus*), smallmouth bass (*Micropterus dolomieu*), spotted bass (*Micropterus punctulatus*), largemouth bass (*Micropterus salmoides*), and walleye (*Stizostedion vitreum*). Most game fish presently found in the New River were deliberately introduced, and only four game fish are known to be native—American eel (*Anguilla rostrata*), channel catfish (*Ictalurus punctatus*), flathead catfish (*Pylodictis olivaris*), and green sunfish (*Lepomis cyanellus*). Recent evidence suggests that a unique population of walleye in the upper New River in Virginia may be native.

In addition, the state of West Virginia stocks nonnative rainbow trout (*Oncorhynchus mykiss*) and brown trout (*Salmo trutta*) in the tributaries to the New River within the park.

AQUATIC INVERTEBRATES. Native mussel communities are an important part of the benthic community in the park. The majority of mussel beds are in the upper third of the park. Mussels decrease significantly in abundance below Glade Creek with no living or dead mussels found in the lower eight miles of the river within the park. Eight mussel species in the park are predominately found on gravel, cobble, and sometimes sandy substrate. Submerged aquatic vegetation is important to establishment of mussel beds because it provides habitat to the fish hosts of the larval mussels. Additionally, the environmental conditions created by islands in the river seem to support mussel beds. Because native mussels are declining throughout the Appalachians, and because of their dependence on good water quality, most native mussels are recognized as species of special concern in West Virginia.

Terrestrial Wildlife

MAMMALS. The park contains 91.5 percent (54 of 59 species) of the mammalian species known to occur in West Virginia and 77 percent (17 of 22 species) of the mammalian species of special concern in West Virginia.

The population of white-tailed deer in the park vicinity (WV DNR District IV) is approximately 33 deer per square mile of available deer habitat. This density is significantly higher than estimates of pre-European settlement deer densities of approximately 8 to 20 deer per square mile on the Appalachian plateau. The WV DNR has recognized the population increase and has adjusted hunting regulations in an effort to control deer numbers. Annual harvest records for the park are unknown. In 2002 there were 29,927 deer harvested from WV DNR District IV, of which only 47 were recorded as being taken in the park. Hunters probably harvested more deer within the park but failed to indicate locations on harvest report cards.

The black bear population in West Virginia is generally growing. The majority of the population increase is centered in the southern part of the state, including Raleigh, Fayette, Boone, and Kanawha Counties. Recent studies in these counties indicate a very healthy bear population with an average litter size of 2.85 cubs. WV DNR has expanded bear hunting opportunities to keep pace with the biological and sociological carrying capacities for bears in each region of the state. WV DNR recently opened a statewide archery season, additional gun hunting, and a special November gun season in five southern counties, including Fayette and Raleigh where bear numbers exceed management objectives. The actual population size and harvest numbers for black bear in the park are unknown.

The park contains globally significant populations of Allegheny woodrats (Neotoma magister), a federally designated species of special concern that is in decline throughout the rest of its range in the eastern United States. The woodrat populations in and around the park may represent the core population for this species in the eastern United States. Most populations within New River Gorge National River are stable; however, a few populations have declined significantly since 1999. The reason for their persistence in the park is unknown, although it may be due to the occurrence of abandoned mine portals.

The park contains a regionally significant assemblage of bats that includes 10 species that have been documented through various study methods. Bats in the park use abandoned mine portals as roosting sites and cliffs for foraging. Two federally endangered species of bats (Virginia big-eared bat *(Cornynorhinus townsendii)* and Indiana bat *(Myotis sodalis))* have been identified as using abandoned mine portals. In addition two state-rare species of bats, Rafinesque's big-eared bat (*Cornynorhinus rafinesquii)* and small-footed myotis *(Myotis leibii)*, also have been identified as using abandoned mine portals.

Ten species of small mammals (mice, voles, shrews, and moles) have been trapped in the park. The long-tailed shrew (*Sorex dispar*), southern pygmy shrew (*S. hoyi winnemana*), and golden mouse (*Ochrotomys nuttalli*) are small mammals of special concern found in the park (McDonald et al. 1989, WV DNR 2003). Suitable habitat seems to be available for other rare species of small mammals, such as the rock vole (*Microtus chrotorrhinus*), rock shrew (*S. dispar*), and water shrew (*S. palustris*), although their occurance has not been documented in the park.

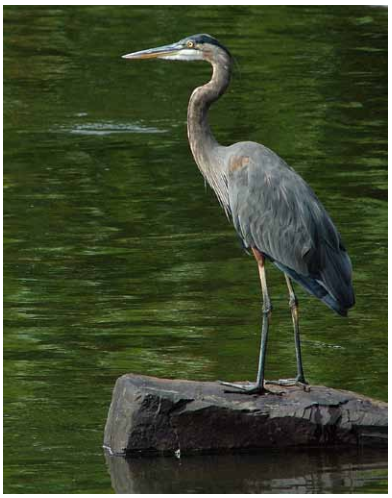
Little is known about the distribution and density of populations of riparian and furbearing mammals, such as the northern river otter, beaver, mink and other weasels, muskrat, and bobcat (*Felis rufus*). Beaver (*Castor Canadensis*), mink (*Mustela vison*), muskrat (*Ondatra zebithicus*), and river otter (*Lutra Canadensis*) are native and were reintroduced into the New River system.

From top:

A white-tailed deer enjoys the early morning fog while grazing in a field at Grandview. (Photo: NPS/Gary Hartley)

Easily identified by their black masks, raccoons scavenge for bird and snake nests as well as fish, frogs, and rodents in the park. (Photo: NPS/Gary Hartley)

NPS wildlife biologist examines an Allegheny Woodrat during an annual survey. A species of special concern, the Woodrat lives along the base of cliffs and in boulder habitats. (Photo: NPS/Gary Hartley)



From top:

This worm-eating warbler, captured during a bird survey, likes the steep hillside forests of the gorge. (Photo: NPS/Gary Hartley)

A familiar site along stretches of the Upper New, a Great Blue Heron watches the calmer stretch of the river. (Photo: NPS/Gary Hartley)

A juvenile peregrine falcon is a sign of the park's success with the Peregrine Falcon Restoration Project, which successfully released 122 birds in the park over six years. (Photo: NPS/Gary Hartley)

BIRDS. Approximately 233 species of birds are known to occur in the park. This represents 74.4 percent (125 of 168 species) of the species found in West Virginia and 42 percent (25 of 59 species) of the species identified as state species of special concern. Of the 233 species found in the park, approximately 93 were detected during breeding season and therefore may nest in the park.

The park is globally significant in providing critical habitat for neotropical migratory birds (neotropical migrants), especially the wood warblers (Family Parulidae). These species depend upon unfragmented mixed deciduous forests with well-developed canopies and gap dynamics (e.g., tree falls) in place. Cerulean warblers, a neotropical migrant that is in decline throughout the Northeast appears to have a concentrated distribution in and around the park. This population of cerulean warblers may be a critical source population for the Appalachians. Several other species of neotropical wood warblers found in the park, including Swainson's warbler (*Limnothlypis swainsonii)*, wood thrush (*Hylocichla mustelina)*, Kentucky warbler (*Oporonis formosus)*, and worm-eating warbler (*Helmitheros vermivorus)* are either species of special concern in West Virginia (Swainson's warbler) or are on the Partners in Flight (PIF) watchlist (wood thrush, Kentucky warbler, worm-eating warbler). The PIF watchlist does not include federally threatened or endangered species; rather, it identifies species that will probably become endangered or threatened. Several species on the watchlist, that have declined precipitously over the past several decades, occupy habitats that are under severe threat, are found in low numbers, or have such restricted ranges that their existence is tenuous.

Aside from the species dependent upon mature, unfragmented forests, some bird species depend upon small (<1 ha {2.47 ac}) forest gaps created by tree falls and other natural and/or human induced disturbances (e.g., logging, land clearing around abandoned mine sites). These forest gaps contain early successional vegetation communities and add vegetative and structural diversity to the forest landscape. The golden-winged warbler (*Vermivora chrysoptera*), a species of special concern in West Virginia that is declining throughout the eastern U.S., depends on these gap dynamics and is currently found in the park.

Hemlock stands provide another important habitat component for rare species of birds in the park. The Swainson's warbler and Louisiana waterthrush (*Seiurus motacilla*), two species that are either species of special concern or listed on the PIF watchlist in West Virginia, nest along streams in forests with some hemlock and/or rhododendron component.

The waterways of the park support species of birds that depend on good water quality (e.g., Louisiana water thrush, belted kingfisher). Water dependent species found in the park, such as green herons (*Butorides virescens*), great blue herons (*Ardea herodias*), spotted sandpipers (*Actitis macularia*), and various species of waterfowl, use riparian corridors along tributaries emergent weed beds for foraging habitat.

Thirteen species of raptors have been documented in the park. Peregrine falcons (*Falco peregrinus)*, once a federally listed species and since delisted, have been sighted in the gorge and could potentially nest on the cliff faces in the park. Peregrine falcons have also been hacked in the park, but no current or historical nesting records for the park exist. Another raptor, the bald eagle *(Haliaeetus leucocephalus)*, has been documented in the park.

Based on harvest records, wild turkey populations in West Virginia appear to be stable or expanding.

REPTILES. Thirty-eight species of reptiles have been documented in the park. Approximately 79.5 percent (31 of 39 species) of the reptiles of West Virginia are predicted to occur in the park and 62 percent (10 of 16) of the reptile species of special concern are predicted to occur in the park.

Two subspecies of the painted turtle (*Chrysemys picta marginata* and *C. p. picta)* occur in the park. The park is one of the few areas where these subspecies interbreed, making the park regionally significant for painted turtles. The eastern river cooter *(Chrysemys concinna)*, a species of special concern in West Virginia, is native in the park. The common map turtle (*Graptemys geographica*), another species of special concern in West Virginia also occurs in the park.

Timber rattlesnakes (*Crotalus horridus*) are known from several locations in the park, including Stone Cliff, Glade Creek, and Grandview, as well as Babcock State Park where there are den sites. Large populations of fence lizards (*Sceloporus undulatus*), five-lined skinks (*Eumeces fasciatus*), and copperheads (*Agkistrodon contortrix*) are also present. Three other reptile species of special concern occur including the broad-headed skink (*Eumeces laticeps*), eastern worm snake (*Carphophis amoenus*), and rough green snake (*Opheodrys aestivus*).

AMPHIBIANS. Continuous forest, abandoned mine portals, and river/stream systems of the park provide habitat for a diverse, nationally significant assemblage of amphibians. Forty-eight species of amphibians have been documented in the park. These species represent 82 percent (37 of 45 species) of the amphibian species known from West Virginia and 60 percent (10 of 17 species) of the state species of special concern.

An outstanding diversity of woodland salamanders occurs in the park, typical of the southern Appalachians that contain the most diverse temperate salamander communities in the world. Tributaries of the New River within the park contain a high diversity of salamanders due to abandoned mine portals.

The black-bellied salamander (*Desmognathus quadramaculatus*), a species of special concern in West Virginia, is at the northern most portion of its range in the park and more common there than previously thought. Cave salamanders, another species of special concern in West Virginia, use abandoned coal mines. Cave salamanders use abandoned mine portals and other habitat (e.g., fractured rock) in the park. Wet sandstone cliffs are critical habitat for the rare green salamander (*Aneides aeneus*) and the common slimy salamander (*Plethodon glutinosus*). Dowdy Creek appears to be an especially important, high quality stream supporting both black-bellied and spring salamanders (*Gyrinophilus porphyriticus*).

The mudpuppy (*Necturus maculosus*), a large aquatic salamander has been captured in the park. Intensive searches have failed to document the presence of the eastern hellbender (*Cryptobranchus alleganiensis*) – another large aquatic salamander.

From top:

The Eastern Box Turtle is among nearly forty species of reptiles documented in the park. (Photo: NPS/Gary Hartley)

Continuous forest, abandoned mine portals, rivers and streams provide habitat for nearly fifty species of amphibians in the park, among them the green frog. (Photo: NPS/Gary Hartley)

This juvenile Red Eft is one of 34 different salamander species in West Virginia. The southern Appalachian Mountains contain the most diverse salamander populations in the world. (Photo: NPS/Gary Hartley)

From top:

The Gauley River is home to the largest population of Spirea in the region, a Federally Threatened species. (Photo: NPS/Gary Hartley)

The Virginia Big-Eared Bat, federally listed as endangered, makes its home in the caves and abandoned coal mines throughout the gorge. (Photo: NPS/Gary Hartley)

Rare, Threatened, and Endangered Species

Numerous rare, threatened, and endangered species are known to occur in the park. Species designated extremely rare and critically imperiled in the state of West Virginia include 28 plant species, two mammal species (small-footed myotis and Rafinesque's big-eared bat), and two mussel species (purple wartyback and pocketbook mussel). The status and distribution of many of these species and their essential habitats within the park are largely unknown.

FEDERALLY DESIGNATED PLANT SPECIES. No federally-designated plant species are known to occur within the park. However, there is a record for one federally-designated plant species, Virginia spirea (*Spiraea virginiana*), a disturbance-adapted shrub of the riparian zone that was found in the 1960s along the New River near Hawks Nest Dam. Running buffalo clover (*Trifolium stoloniferum*) is a federally endangered plant that occurs within New River Gorge at Cotton Hill, located just outside the park boundary. Habitat for both rare plants exists in the park, but repeated attempts to locate populations of the species inside the park have proved negative.

The New River Gorge has served as a migration corridor for plants through the Appalachian Mountains for millennia. Retreat of the northern ice sheets and the consequent amelioration of the climate has resulted in the elimination of many of the northern species from New River Gorge and permitted the southern species to advance, both latitudinally to the north and altitudinally to higher elevations in the mountains. However, micro-habitats exist in a few high elevation wetlands and steep, cool, cove forests that provide refuge for northern plants uncommon in southern West Virginia. For these reasons, several plants are found in the park at the northern or southern extent of their range, resulting in a large number of rare plants, some of which are endemic to the park. The park is host to sixty-three rare plants that are tracked by the West Virginia Natural Heritage Program. Of these sixty-three rare plants; twenty-eight plants are listed as S1-extremely rare and critically imperiled, with five or fewer occurrences statewide; while another thirty-five plants are listed as S2-very rare and imperiled, with six to twenty occurrences statewide.

FEDERALLY DESIGNATED MAMMAL SPECIES. Two mammal species are federally designated as endangered and one species is federally designated as a species of special concern. The federally endangered Indiana bat (Myotis sodalis) and the Virginia big-eared bat (*Cornynorhinus townsendii*) use abandoned mine portals as roosting sites and cliffs for foraging. The park contains globally significant populations of Allegheny woodrats *(Neotoma magister)*, a species that is under review for listing by the U.S. FWS. Though the population is thought to be stable in West Virginia, it is in decline throughout much of its range in the eastern United States.

The northern flying squirrel (*Glaucomy volans fuscus)*, is predicted to occur in the park but has never been documented.

FEDERALLY DESIGNATED AMPHIBIAN SPECIES. The Cheat Mountain salamander (*Plethodon nettingi*), a federally listed threatened species, is predicted to occur in the park. However, it has not been documented and the appropriate habitat (boreal forests) is not present in the park.

CULTURAL RESOURCES

Pre-Historic Native American Cultural Resources/Contexts

The first human occupants in the New River Gorge area were Paleo-Indian hunters who arrived about 13,000 years ago. Two features of the gorge area influenced prehistoric use in the area, making it an extremely interesting location archeologically. Native Americans who inhabited the area in prehistoric times over 13,000 years ago were primarily attracted by the abundance of natural resources in its uplands and riparian areas. Level ground in the uplands along the New River also provided natural north-south travel corridors connecting prehistoric cultures in the Southeast and Ohio River Valley.

Archeological investigations conducted since the late 1800s have documented 355 prehistoric archeological sites within the park or within one kilometer of the park boundary. Prior to 1980, archeologists had identified only 13 prehistoric sites within the park. Since 1980, the NPS, the West Virginia Geological Survey, the West Virginia Archaeological Society, cultural resource management consultants, and avocational archeologists have recorded an additional 342 prehistoric sites. The most comprehensive effort was included as part of the *Archaeological Overview and Assessment of New River Gorge National River* (Pollack and Crothers 2005).

Surface collections, documented private artifact collections, and shovel testing have provided most of the available information for the 355 recorded sites. Archeologists have conducted limited excavations at only a few sites. Most sites have not been evaluated for eligibility for inclusion in the National Register of Historic Places. Currently, although several are identified as significant archeological resources, none are nominated to or have formally been determined eligible for the National Register. In general, the prehistoric sites occur in five geologic and physiographic settings within the park:

- large floodplains and relatively flat slopes close to water with old alluvial or colluvial deposits
- cliff-forming Raleigh and Nuttall sandstone members of the New River Formation
- upland settings associated with ridgetops, overlooks, and the level landforms at stream junctures
- major tributary valleys of the New River
- some features of the New River, such as major falls and shoals may have attracted prehistoric groups

Based solely on the number of identifiable component(s) found at the 355 sites, the prehistoric activities in the New River Gorge area seem to have peaked during the Late Archaic (3000-1000 B.C.) and then gradually declined through the Late Prehistoric (A.D. 1000-1700). The most intensive utilization occurred during the Late Middle and Late Woodland periods. The sites utilized included small upland camps, rockshelters, mounds, large bottomland camps, and perhaps some villages. The most common site type recorded is an open habitation without subsurface features (139 sites or 39%), typically characterized by a surface scatter of chert flakes. Most of these sites are located upstream from Sandstone Falls, on wider floodplain areas and terraces. The second most commonly found site is a rockshelter (107 sites or 30%). Through time there was an increase in the use of rockshelters, with Woodland and Late Prehistoric groups using these types of sites to a greater extent than earlier groups. Other sites types include multiple activity areas that were used for tool manufacture and rejuvenation, and hunting and gathering camps. Only one earth and stone mound has been documented in the park. Because no Paleo-Indian sites have been excavated in West Virginia, the two Paleo-Indian sites recorded in the park would be very significant if further research determines that the sites have intact Paleo-Indian components.

New River Gorge National River

Prehistoric Chronology*

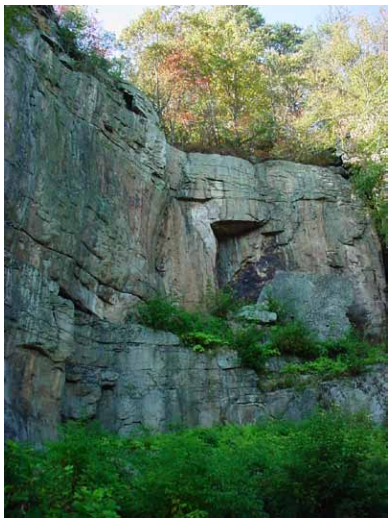
13000-8000 B.C.
Paleoindian Period
Small, free-wandering groups subsisted by hunting large game animals and foraging wild plants

8000-1000 B.C.
Archaic Period
Shift to seasonal hunting and gathering; evolved to more settled people who supplemented hunting and gathering by harvesting sunflowers, pumpkins, and gourds

1000 B.C. to A.D. 900
Woodland Period
Small groups living in rockshelters and some villages with economies based on intensive maize-based agriculture

A.D. 900-1670
Late Prehistoric Period/ Protohistoric
Small groups with increasing sedentary village life and dependence on cultivation of corn, beans, and squash

* Additional information on these contexts can be found in the archeological overview assessment done by Pollack and Crothers (2005) and Fuerst (1981).



Nuttall sandstone rock walls where prehistoric groups may have found shelter.
(Photo: WRT/E.Clarke)

New River Gorge National River

Settlement Chronology

Prior to 1670
Native American Habitation
The Fort Ancient peoples and later the Shawnee people and other Native Americans inhabited the gorge

1670 – 1873
Exploration and Early Settlement
Scotch-Irish, German, and English settlers homesteaded the gorge; some African-Americans brought in as slaves

Mid 18th to mid 19th Century
Industrialization and Prosperity
Eastern and southern European and African-American immigrants were brought in to work on the railroads and in the timber and mining industries

Mid to Late 20th Century
Post Industrial Recession
Outmigration of all groups from gorge communities occurred as the timber and mining industries declined and railroad technology changed; many African-American and immigrant families moved to neighboring communities

Early 21st Century
Contemporary Settlement
Descendants of African-American and immigrant families continue to reside in the gorge's communities near the gorge and throughout southern West Virginia

Historic Contexts

Five historic contexts provide a framework for describing and understanding the cultural resources within the boundaries of New River Gorge National River: 1) the coal industry, 2) the railroad industry, 3) the lumber industry, 4) Euro-American settlement/agriculture, and 5) recreation/state parks.

COAL INDUSTRY HISTORIC CONTEXT. Lying in the center of the rich Appalachian bituminous coal field, two-thirds of the land in West Virginia is underlain with coal seams, fifty of which are sufficiently thick to be considered minable. Found in all but two of West Virginia's 55 counties coal has been mined in the state for more than a century. From 1927 until 1973, West Virginia led the nation in coal production in the United States. In no other state in the nation has coal been so central to economic development and social life.

Today most of the gorge's historic properties related to coal mining are best described as historic archeological sites. Abandoned coal mining operations and company towns that might have survived as "ghost towns" in a different environment have deteriorated rapidly in the temperate New River climate. Most structures associated with the coal towns and mines were designed to be short-lived and were dismantled when abandoned. Coal company houses and other structures along the river in the gorge were often salvaged or removed to be rebuilt in communities above the gorge. Many abandoned houses were destroyed by fire or years of neglect because of absentee ownership. More substantial structures, such as coke ovens and tipples, have survived better than the frame residences and mine equipment structures, but all have been subjected to vandalism, salvage, "pot-hunting", and the destructive effects of rapid and dense vegetation growth. The West Virginia State Historic Preservation Office estimates that the extant ruins of most coal towns and mining sites in the gorge contain an average of some 10 to 20 percent of original fabric. A few historic structures survive relatively intact in the historic coal towns and mining sites, but many towns and mines have only remnant ruins while others have disappeared entirely. In the most isolated sections of the gorge many coal town and mining sites have virtually returned to their preindustrial state.

The site of the Nuttallburg Mine and Town offers visitors an opportunity to learn about the park's mining history, represented here by the recently rehabilitated Nuttallburg Mine conveyor and tipple. (Photo: NPS/Richard Segars)

RAILROAD INDUSTRY HISTORIC CONTEXT. Commencing service in 1873, the Chesapeake and Ohio (C&O) Railroad was the first post-Civil War trunk line constructed through the Central Appalachians, stretching 419 miles from Richmond – then one of the south's leading industrial cities – to the Ohio River Valley at Huntington, West Virginia. New River Gorge presented the most challenging section for engineering and construction of the new C&O line due to the vertical gradient, the gorge, the narrow river floodplain, and bedrock conditions. The last sections of the railroad to be built included the Stretcher's Neck Tunnel (completed in July 1872) followed by the last few difficult sections along the lower New River. On January 29, 1883, the last spike was driven at Hawks Nest by dignitaries from Richmond, Virginia.

The historic railroad town of Hinton is home to the Hinton Depot and other buildings and structures dated from the late 1800s. (Photo: NPS/Gary Hartley)

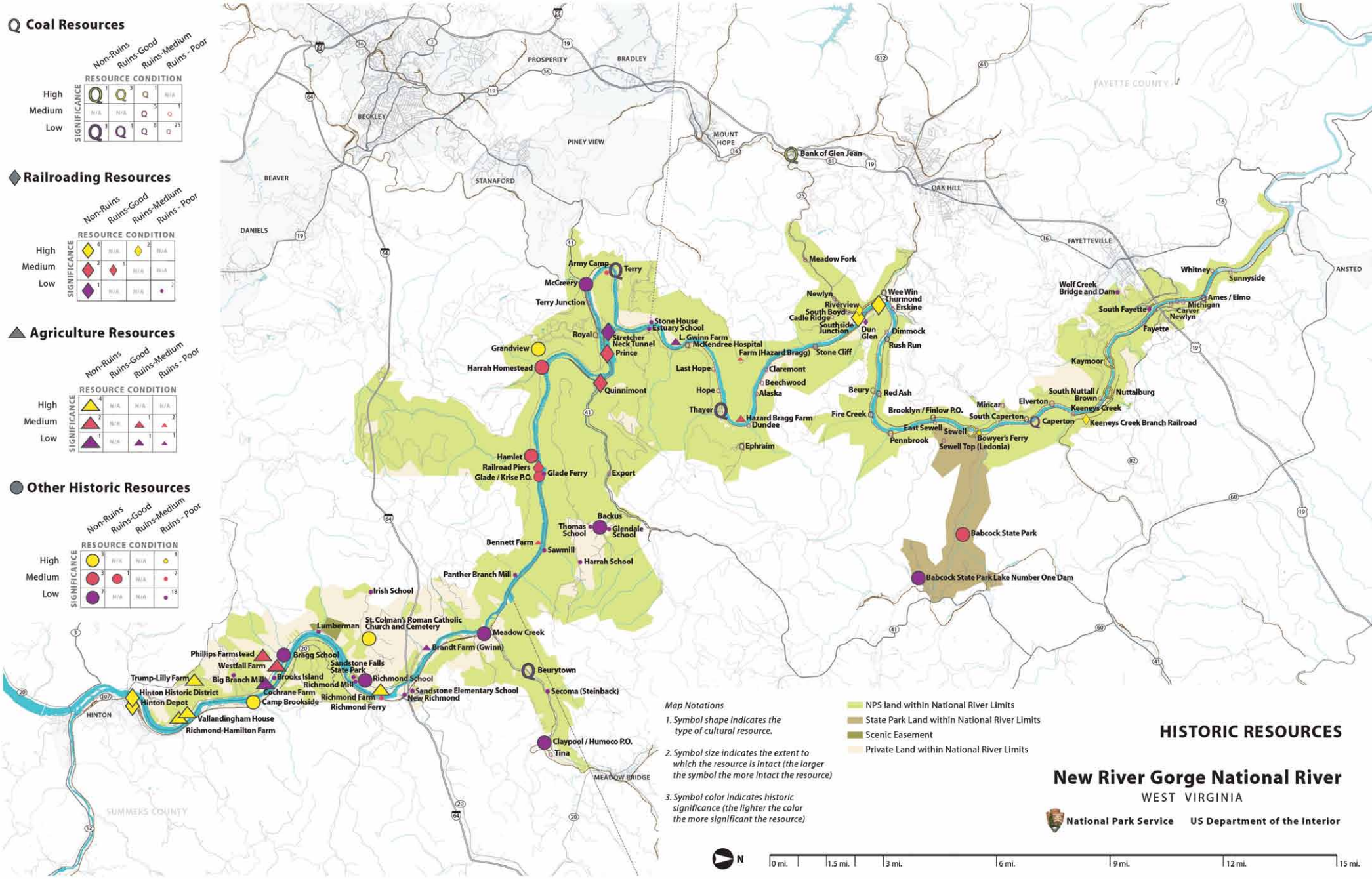
Since coal operations in the gorge ceased, the gorge's railroad towns have declined – with the exception of the city of Hinton. CSX has razed most of the railroad related resources. The Hinton Depot remains and is owned by the city of Hinton. The Thurmond Depot remains and is owned by the NPS and is used as a visitor center.

The branch rail lines and many of the structures that were associated with the operation of the C&O mainline are no longer needed and have fallen into disuse and decay. Virtually all the track on the branch lines has been removed, leaving only remnants of rail line cuts, embankments, trestles, and culverts. Many of the early railroad structures associated with the operation of the C&O Railroad mainline that are no longer needed for modern rail operations have been razed. NPS has recently rehabilitated two trestles on the Keeney Creek Branch line at Nuttallburg.

LUMBER INDUSTRY HISTORIC CONTEXT. Both before and after the Civil War many farm families in present-day West Virginia engaged in occasional timber cutting for sale to local sawmills. Almost every county had at least one sawmill, which usually combined with the gristmill located along the banks of the stream. Nevertheless, sawmills in West Virginia were comparatively few and small capacity. In 1869, there were only 348 sawmills in the state of which 150 were operated by steam and 185 by water. Some 20 to 30 steam-powered mills were located along the Baltimore and Ohio Railroad in the northern part of the state about that time. By 1880 the number of mills in the state increased to 472. Except along the Baltimore and Ohio Railroad, the chief method of transportation was by rafting saw logs and crossties and floating lumber and other wood products in small barges on the larger streams.

Despite the historic impact of the lumber industry on the natural environment, its material legacy in the gorge is quite limited because of the transient nature of the industry and its extensive use of portable structures for logging operations. Surveys have found no examples of extant lumber industry structures in the park. Only a few ruins, broken foundations, and logging roads/trails remain. In the most isolated section of the gorge, many sites associated with lumbering operations have disappeared entirely and have virtually returned to their preindustrial state.

Three historic town sites with a lumbering past are of interest in or just outside the park, including Hamlet, Landisburg, and Meadow Creek. Hamlet represents an intact historic archeological site that appears to be eligible for listing on the National Register. Meadow Creek, while still an active community in the gorge, has an extensive although still undocumented sawmill. Other undocumented sawmill ruins are located on the Gwinn property on Round Bottom across from McKendree Hospital and at the mouth of Camp Branch on the east side of the New River above Hamlet.


Coal Resources
Railroading Resources
Agriculture Resources
Other Historic Resources
Non-Ruins
Ruins-Good
Ruins-Medium
Ruins - Poor
RESOURCE CONDITION
SIGNIFICANCE
High
Medium
Low
PROSPERITY
BRADLEY
BECKLEY
PINEY VIEW
MOUNT HOPE
BEAVER
STANAFORD
DANIELS
OAK HILL
FAYETTE COUNTY
FAYETTEVILLE
ANSTED
SUMMERS COUNTY
HINTON
MEADOW BRIDGE
Bank of Glen Jean
Army Camp
Terry
McCreery
Terry Junction
Royal
Stretcher Neck Tunnel
Prince
Stone House
Estuary School
L. Gwinn Farm
McKendree Hospital
Grandview
Harrah Homestead
Quinnimont
Last Hope
Hope
Thayer
Hazard Bragg Farm
Dundee
Farm (Hazard Bragg)
Stone Cliff
Claremont
Beechwood
Alaska
Ephraim
Meadow Fork
Newlyn
Riverview
South Boyd
Cadle Ridge
Southside Junction
Wee Win
Thurmond
Erskine
Dun Glen
Dimmock
Rush Run
Beury
Red Ash
Fire Creek
Brooklyn / Finlow P.O.
East Sewell
Pennbrook
Sewell
Sewell Top (Ledonia)
Bowyer's Ferry
Mincar
South Caperton
Caperton
Elverton
South Nuttall / Brown
Nuttalburg
Keeneys Creek
Keeneys Creek Branch Railroad
Kaymoor
South Fayette
Fayette
Wolf Creek Bridge and Dam
Whitney
Sunnyside
Ames / Elmo
Michigan
Carver
Newlyn
Babcock State Park
Babcock State Park Lake Number One Dam
Hamlet
Railroad Piers
Glade / Krise P.O.
Glade Ferry
Export
Backus
Glendale School
Thomas School
Bennett Farm
Sawmill
Harrah School
Panther Branch Mill
Irish School
Lumberman
St. Colman's Roman Catholic Church and Cemetery
Meadow Creek
Brandt Farm (Gwinn)
Beurytown
Secoma (Steinback)
Phillips Farmstead
Bragg School
Westfall Farm
Big Branch Mill
Brooks Island
Sandstone Falls State Park
Richmond Mill
Richmond School
Trump-Lilly Farm
Hinton Historic District
Hinton Depot
Cochrane Farm
Camp Brookside
Richmond Farm
Richmond Ferry
Sandstone Elementary School
New Richmond
Vallandingham House
Richmond-Hamilton Farm
Claypool / Humoco P.O.
Tina
Map Notations
1. Symbol shape indicates the type of cultural resource.
2. Symbol size indicates the extent to which the resource is intact (the larger the symbol the more intact the resource)
3. Symbol color indicates historic significance (the lighter the color the more significant the resource)
NPS land within National River Limits
State Park Land within National River Limits
Scenic Easement
Private Land within National River Limits
N
0 mi.
1.5 mi.
3 mi.
6 mi.
9 mi.
12 mi.
15 mi.
HISTORIC RESOURCES
New River Gorge National River
WEST VIRGINIA
National Park Service
US Department of the Interior

EURO-AMERICAN SETTLEMENT/AGRICULTURE HISTORIC CONTEXT. Following the Revolutionary War early settlers, mostly of English, German, and Scotch-Irish descent, moved into the rugged New River Gorge region. Early settlement patterns were informal and haphazard as most were squatters without legal title to the land. Typically, pioneers would claim a site near a spring, deaden some trees, enclose a clearing, and plant some corn. A maximum of 400 acres could be taken under a "corn" right, but the settler could also be entitled to an adjoining 1,000 acres if he built a cabin and began farming the acreage.

At one time subsistence farms, such as the Phillips Farm were commonplace on bottomlands and upland benches along the New River Corridor. (Photo: WRT/E. Clarke)

Most early farmsteads, agricultural processing industries, and transportation facilities along the New River and its tributaries in the gorge region have disappeared or become historic archeological sites. While a few remnant examples of late 19th and early 20th century historic farmsteads remain in the ridge and plateau areas of the gorge, visible traces of agricultural sites have become less well defined and most have been reclaimed at least in part by the forest and dense vegetation as agricultural activity has declined and farmsteads have been abandoned in recent decades.

Most of the park's surviving historic settlement/agriculture resources are located in the upper Gorge between Hinton and Sandstone Falls. Trump-Lilly Farmstead is a rare surviving site representative of a late 19th and early 20th century traditional self-sufficient/subsistence farm. However, only about 10 percent of the farm is now cleared and the agricultural system seen today is small by comparison to the agrarian activities once undertaken at the site. Significant farmstead resources include Richmond-Hamilton Farm, Vallandingham Farm, Cochran Farm, Phillips Farm, and Westfall Farm. Other sites are found on Irish Mountain and along the Old State Road above Sewell.

Because of the self-sufficient, subsistence nature of most agricultural activity in the gorge area, few if any, agricultural processing facilities that can be identified are extant in the park. A few examples include grist mills at Sandstone Falls, Panther Run, Camp Brookside, and Bowyers' Ferry. Other examples of such enterprises may survive in nearby towns and service centers.

Historic farm road remnants are extant in some parts of the gorge, especially in the ridge and plateau areas away from industrial sites. The integrity of some road fragments, however, has been impacted by nearby coal, lumber, or railroad operations.

RECREATION/STATE PARKS HISTORIC CONTEXT. When New River Gorge National River was established in 1978, three units of the West Virginia state park system were located within its authorized boundaries. The three parks – Babcock, Grandview, and Sandstone Falls – formed the basis of established public recreation facilities and opportunities in the new park. Babcock State Park and Grandview State Parks were established as units of the initial West Virginia state park system and developed using New Deal emergency funding and Civilian Conservation Corps (CCC) enrollees for conservation. They were among the initial group of state parks developed during the 1930s that were dedicated to recreation, preservation, and conservation of West Virginia's natural resources and scenic beauty. The two concepts of recreational development and conservation of resources that provided the rationale for establishment of the state parks at Grandview and Babcock foreshadowed the underlying purposes for creating New River Gorge National River as a unit of the national park system.

Glade Creek Grist Mill is a fully operable, new mill that was completed in 1976 at Babcock State Park – a recreation of one which once ground grain on Glade Creek.
(Photo: NPS/Gary Hartley)

Babcock is one of the finest West Virginia state parks. It represents the pinnacle of New Deal-Era CCC constructed state parks. It retains many of the original design elements, such as the entrance station, landscaping, stone work, parking lots, and overlooks. Its cultural landscape, however, has not been documented to determine whether it warrants listing on the National Register.

Grandview State Park lacks much of the naturalistic character exhibited by many other West Virginia New Deal-era CCC parks. There are many CCC design elements present, although many of its extant resources such as the picnic shelters date to the 1950s period of renovation and development.

Visitors can follow the town loop trail at Nuttallburg to explore foundations of this historic coal mining town in the gorge. (Photo: NPS/Richard Segars)

Historic Archeological Resources

Many of the park's cultural resources are the ruins of the New River communities – mostly "ghost towns" today – where thousands of miners worked and their families lived in the gorge during its industrial heyday from 1880 to 1930. These communities and related industrial sites now abandoned and generally in ruins, are largely archeological sites. Because they post-date the arrival of Europeans in the New World and are supported by documentary records, they are historic archeological sites. With few exceptions these historic archeological resources are complexes or localities – rather than individual sites – where clusters of domestic and industrial sites related to mining, railroading, lumbering, and farming can be found.

NPS has completed preliminary inventories and field studies for many of the park's historic site complexes. The most comprehensive is the *Historic Resource Study* (Workman et al. 2005) that included a literature review, additional research, and field reconnaissance of 34 site complexes in the park. Findings from this study concluded that all of the sites likely contain historic archeological resources, although they vary dramatically in terms of the potential significance of the resources. Three site complexes were found to be potentially nationally significant, possessing a high level of integrity, and intrinsically important to the mission of the park: Nuttallburg, Thurmond, and Babcock State Park. Twenty-four sites were found to be potentially significant on the regional or local level and/or to lack high integrity; they may be intrinsically important to the mission of the park. Seven sites were found to be of lower potential significance and integrity and are not important to the park's mission. Many other smaller sites with potential for intact archeological resources occur throughout the park – including community sites as well as individual sites. Sites have been documented only through limited archival research and field survey.

Cultural Landscapes

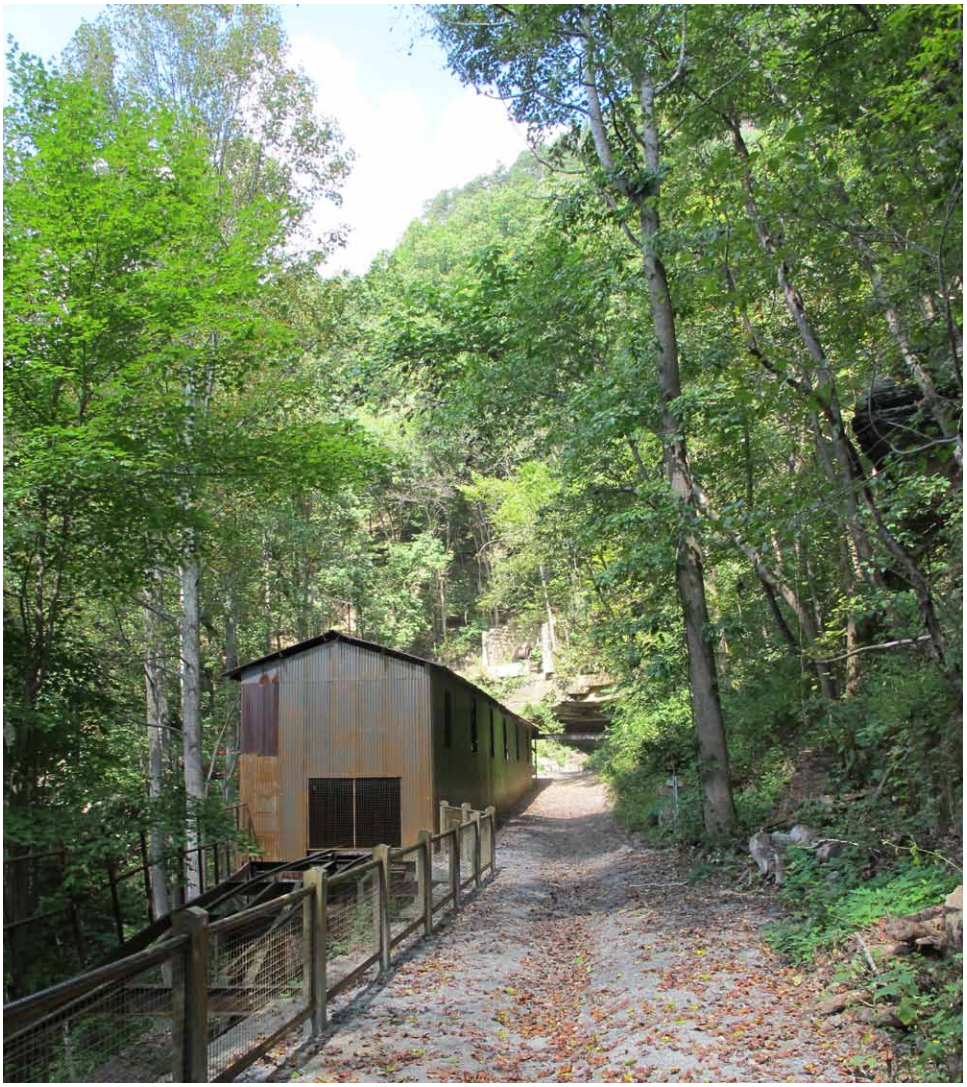
The park's cultural landscapes are the geographic areas – including both cultural and natural resources – that are associated with the historic events and activities in the park's past and/or with the people who have lived and worked in the park and that are integral to its significance. Thirteen cultural landscapes within the park are representative of four of the park's historic contexts; ten of these retain the integrity needed to convey their significance as cultural landscapes.

- **Nuttallburg Mining Complex and Town** (see Historic Structures)
- **Kaymoor Mine and Kaymoor,** (see Historic Structures)
- **Thurmond** (see Historic Structures)
- **Cochran Farm,** ca. 1910, a former farm representative of pre-industrial subsistence farming, including a farm lane and remains of two sheds
- **Harrah Homestead,** ca. 1910, a former homestead representative of a regional housing type, including a house and outbuildings (locally significant)
- **Richmond-Hamilton Farm,** ca. 1902, a former farm representative of subsistence farming, including a largely unaltered farmhouse and outbuildings associated with the early Richmond family that originally settled the area in the 18th century (regionally significant; determined eligible for the National Register)
- **Trump-Lilly Farm,** ca. 1880s, a former farm, representative of pre-industrial subsistence farming, including largely unaltered farmhouse and outbuildings originally owned by the 3rd generation of the Richmond family that originally settled the area in the 18th century (listed on the National Register)
- **Vallandingham House,** ca. 1870, a former farm representative of pre-industrial subsistence farming, including a log cabin and outbuildings (locally significant; house determined not eligible for the National Register by the WV State Historic Preservation Officer)

Visitors get a glimpse of the difficult life of subsistence farming at Trump-Lilly Farm located in the southern district of the park. (Photo: NPS/Richard Segars)

- **Camp Brookside,** ca. 1945, including 30 acres on a river terrace above the New River near Hinton, developed in the 1940s by the Union Carbide Company as one of seven summer camps for children of its employees (state significant; determined potentially eligible for the National Register by the WV State Historic Preservation Officer)
- **Grandview,** ca. 1939, previously a West Virginia state park developed using Civilian Conservation Corps labor, including typical design features from that era (likely state significant; potentially eligible for the National Register)

The Mine Headhouse was stabilized during a multi-year project at Nuttallburg, which is today considered one of the most intact examples of a coal mining complex in West Virginia. (Photo: NPS/Richard Segars)



Historic Structures

Buildings and structures found in the park are a reflection of its industrial, cultural, and building arts heritage, as well as the rugged terrain of the gorge. Notable historic structures include industrial structures related to coal mining and railroading and the communities that housed the people who worked the mines, cut the timber, and operated the railroad. Notable structures also include the farmsteads and community buildings built in the gorge by settlers and their descendants prior to and during the period of industrialization.

Four historic districts wholly or partially within the park are listed on the National Register:

- **Nuttallburg Mining Complex and Town Historic District,** one of the most complete early 20th century coal related industrial sites in the United States; owned by Henry Ford during the 1920s, nationally significant for its association with Ford's revolutionary experiment to streamline and vertically integrate all levels of industrial production; largely unaltered since that time; remaining standing structures include the Nuttallburg Mine headhouse, conveyor, tipple, and power house
- **Kaymoor Historic District,** a significant industrial site representative of the New River coal field industrial complex and related company town in operation from 1899 through 1962; a few industrial structures still standing

- **Thurmond Historic District,** a railroad town in the heart of the gorge and the primary railroad center for the New River Gorge coal field during its peak production period from the late 1890s through the 1920s; significant for its association with the C&O Railroad and the coal mining industry and for its railroad architecture, vernacular worker housing, and simple commercial buildings typical of a West Virginia boomtown during the 1884 to 1950 industrial period
- **Hinton Historic District,** located in downtown Hinton, representative of the major building booms of the 1880s to 1920s, composed of commercial and residential buildings with minimum contemporary architecture (only the Hinton Depot is located within the park)

Individual properties listed on or determined eligible for the National Register of Historic Places and the more significant individual structures within the historic districts include:

- **St. Colman's Roman Catholic Church,** ca. 1877, the only visible remains of the once thriving Irish community in Raleigh County; now owned by the Roman Catholic Diocese of Wheeling-Charleston
- **Prince Brothers General Store (Berry Store),** ca. 1900, a frame commercial building that housed a grocery and dry goods business, and served as the local post office for decades until its closing in 1984; once of the last surviving commercial buildings in the gorge from the New River coal industrial period; now owned by the NPS and vacant
- **Hinton Depot,** ca. 1906, former C&O depot; now owned by the city of Hinton; two-story brick structure; in active operation by AMTRAK
- **Thurmond Depot,** ca. 1905, former C&O Railroad depot and offices of the C&O Railroad; two-story frame structure; now owned by the NPS, restored and used as a park visitor center and museum; also serves as an AMTRAK "flagstop"
- **Thurmond Commercial Row,** including the two remaining buildings in Thurmond's commercial "main street"; composed of the three-story brick Mankin-Cox Building (ca. 1904) and the four-story brink National Bank of Thurmond (ca. 1917); now owned by the NPS and vacant
- **Glen Jean Bank,** ca. 1909 and 1917, an excellent example of a period small town bank, was the center of financial activity for development of the town of Glen Jean and other nearby communities; architecturally one of the most significant structures in the Glen Jean Historic District; now owned by the NPS and used for park offices

Many other structures occur in the park that are significant for their association with the events and lives of people who have lived in the gorge, for their ability to inform our understanding of the park's history, or that are excellent examples of a particular type, period, or method of construction.

From left:

A classic boomtown because of the Chesapeake & Ohio Railway, the banks in Thurmond were among the richest in the state in the first two decades of the 1900s. (Photo: WRT/E. Clarke)

The Glen Jean Bank stands as another example of an early 20th century small town bank. (Photo: WRT/E. Clarke)

Used by the park's early settlers for its medicinal properties, today Ginseng is a protected plant species in the park. (Photo: NPS/Gary Hartley)

Ethnographic Resources

THE PARK'S TRADITIONALLY ASSOCIATED PEOPLE AND GROUPS. Waves of settlement and a unique intermingling of distinct ethnic groups characterize the human use and settlement of the New River region. Native Americans initially inhabited the area; in the 18th century the Scotch-Irish, German, and English settlers homesteaded the region; and in the late 19th and early 20th centuries, eastern and southern European and African-American immigrants were brought in to work on the railroads and in the timber and mining industries. Mine operators strategically hired different ethnic groups and segregated mining communities by race and ethnicity to prevent union organization.

Many of the immigrant and settlers' families and descendants established southern West Virginia as their home and continue to reside in communities adjacent to the park. These groups intermingled and established unique relationships with the landscape, which allowed them to survive despite the hardships of the mining industry and the fluctuations in paying jobs. Today, the traditionally associated people and groups fall into four groups: Euro-American frontier family descendants, African American individuals and groups, descendants of immigrant miners, and federally recognized Shawnee tribes. Each group define themselves in part by their relationship with the New River area, its resources they use, and the cemeteries and home places of their ancestors that they visit.

TRADITIONAL ETHNOGRAPHIC CULTURAL AND NATURAL RESOURCES. Comprehensive studies have not been completed in the park area that identify its specific traditional ethnographic cultural and natural resources. However, the recently completed *Ethnographic Overview and Assessment of the New River Gorge National River* (Hufford et al. 2006) concluded that there are places within the park boundaries that have great significance for the park's traditionally associated people and groups. The ethnographic resource identified as vital is the landscape of the mixed mesophytic forest and associated forests in association with the collective memory – the stories – that animate and are animated by the landscape. It is possible that this landscape today forms one of the most intact examples of a community forest and watershed to be found in North America. Further research and study will identify the connections between the park's traditionally associated people and groups and the park's specific cultural and natural resources found within the park's mixed mesophytic watershed.

Over time, the New River and its tributaries in West Virginia carved the landscape of the Allegheny Plateau into the deep meandering gorges visible today. (Photo: NPS/Gary Hartley)

Scenic Resources

The topography of New River Gorge, the waters that shaped it, the forest that blankets it, and the remnants of past human settlement hidden within it, combine to create a scenic landscape that is New River Gorge National River. Collectively these are the park's scenic resources that provide the visual context for the park and that define the dramatic and extraordinary views that visitors experience. Briefly summarized these scenic resources include:

- **New River** – flowing for 53-miles through the park, at times wide and tranquil and frequently violent and turbulent
- **New River Gorge** – cut by the New River through the rocks of the Appalachian Plateau, wide and pastoral in the south while in the north narrow and treacherous reaching a depth of almost 1,000 feet with frequent near vertical cliff walls
- **unfragmented forest** – stretching out through the gorge and on the Allegheny Plateau, composed of a near continuous span of mixed deciduous forest with very few roads, trails, utility corridors, or modern developed land uses
- **scenic cultural landscapes** – the places scattered throughout the gorge where people once lived and worked, providing a glimpse into the park's early settlement years of the late 18th and early 19th centuries and the industrial era of the late 19th and early 20th centuries when coal mining, lumbering, and railroading dominated the gorge
- **tributary streams of the New River** – including mountain streams flowing through deeply incised rocky channels with numerous picturesque waterfalls and rock formations

In addition to these scenic resources, the New River Bridge itself – owned and maintained by the WV Division of Highways – is a major scenic attraction in the park that most visitors seek to view by either driving across it, by passing beneath it, or by viewing it from an overlook.

The New River in the Upper Gorge below Hinton features calmer water along this floodplain community. (Photo: WRT/E. Clarke)

Views of Scenic Resources

Visitors experience dramatic and extraordinary views of scenic resources from three types of vantage points within the park: from the river or river banks while paddling or fishing the New River, from trails and roads while exploring the park by foot, bicycle, horse, or vehicle, and from overlooks and points of interest.

Computer modeling of viewsheds reveals the areas within and near the park that are visible from each of these vantage points. Modeling shows that from many locations within the park the visitor experience is defined by scenic resources in and around the gorge that are both within the current park boundary as well as outside the current park boundary. In many locations, visitors have expansive views of the park and the adjoining Appalachian Plateau extending well beyond the park.

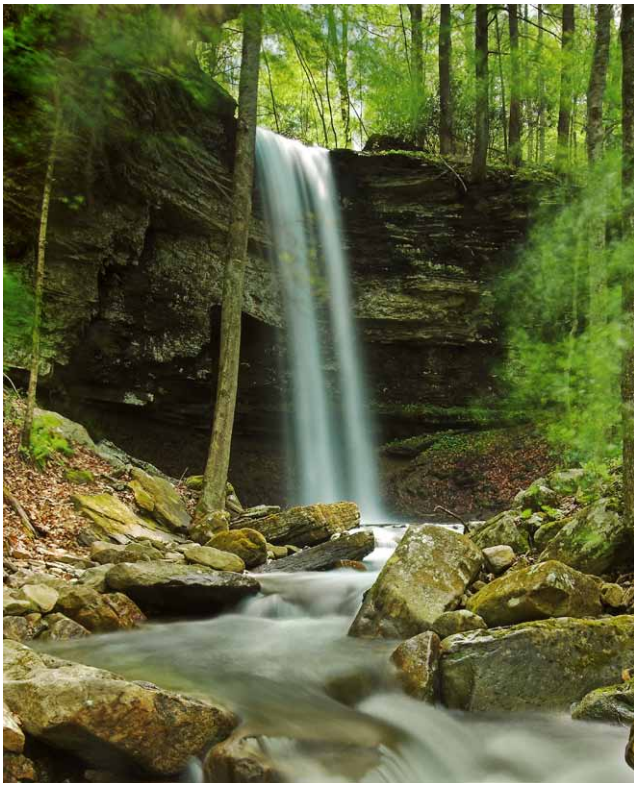
VIEWS FROM THE RIVER. Most of the park's rugged topography and forested lands is visible from the river and along its banks when paddling, fishing, or sightseeing. Boaters generally see the expanse of the forested gorge walls, although they cannot see up tributary valleys such as the Glade Creek, Dunloup Creek, or Arbuckle Creek valleys. From the river, they typically are unable to view scenic resources above the rim or on the plateau.

Visitors to the Brooks Falls Overlook off of Route 20 can look down on the mile-long Brooks Island, a perennial bald eagle nesting site. (Photo: NPS/Gary Hartley)

In general, views from the river encompass scenic resources within the park boundary, except in the upper gorge where boaters looking to river right can see well beyond the park boundary as they float from Hinton to Sandstone.

VIEWS FROM TRAILS AND ROADS. From trails and roads visitors generally experience enclosed views of the forest, interspersed with more expansive views where breaks occur in the forest cover. Visitors also experience views of the park's cultural landscapes where they come upon them while hiking, biking, or riding trails or when driving park roads. Glade Creek Road in the park is designated by the state as a scenic "backway" significant for visual setting.

VIEWS FROM OVERLOOKS AND POINTS OF INTEREST. From overlooks and points of interest, visitors experience broad views of the river, the gorge, and the forest. From many overlooks the views extend well beyond the park boundaries.

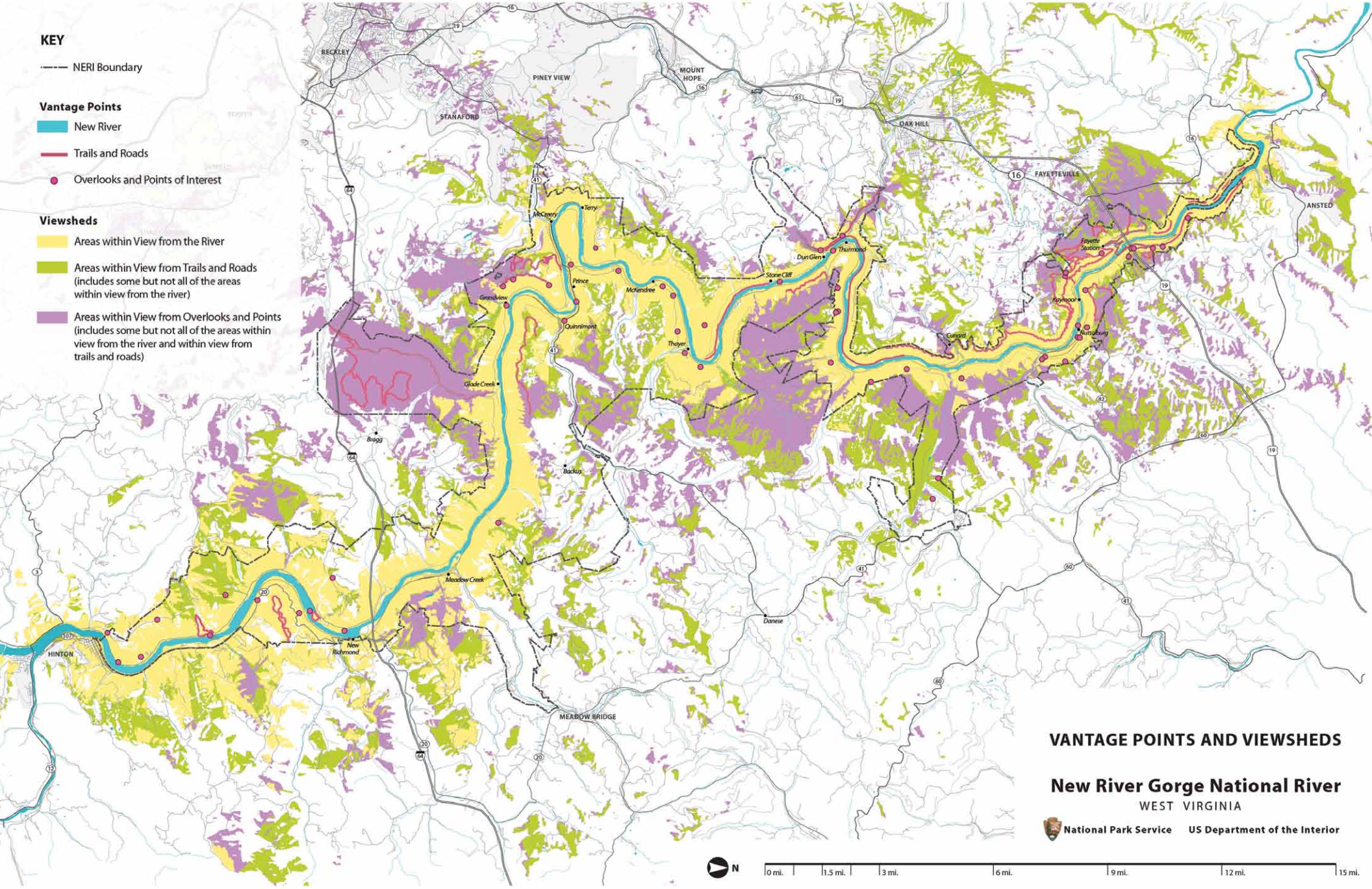


From top:

Scenic waterfalls throughout the park attract visitors who enjoy the cascading waters over rugged rock cliffs. (Photo: NPS/Gary Hartley)

Commercial rafters enjoy a quieter stretch of the Lower New upstream from the Fayette Station Bridge. (Photo: WRT/E. Clarke)

The New River Gorge Bridge is one of the most photographed places in West Virginia and was recently listed on the Register of Historic Places. (Photo: NPS/Gary Hartley)



VANTAGE POINTS AND VIEWSHEDS

New River Gorge National River

WEST VIRGINIA

National Park Service US Department of the Interior

From top:

Sandstone Visitor Center serves as a gateway to the southern portion of the New River Gorge National River. (Photo: WRT/E. Clarke)

With more than 300,000 visitors each year, the Canyon Rim Visitor Center provides the park with a nationally recognized facility, revealing the beauty of New River Gorge National River. (Photo: WRT/E. Clarke)

VISITOR EXPERIENCE AND VISITOR USE

Over one million people visit New River Gorge National River each year, mostly during the summer months. The dramatic New River Gorge landscape and the whitewater recreation opportunities of the New River attract most first-time visitors to the park. Those new to the park quickly discover that within the spectacular gorge landscape and along the river are hidden the remains of dozens of towns that tell the stories of West Virginia's coal, lumber and railroading industries which flourished in New River Gorge during the late nineteenth and early twentieth century. For most visitors the spectacular terrain of the gorge, the free-flowing New River, and the tranquil setting – interspersed with the remnants of the gorge's human history – offer appealing opportunities for a variety of recreation and learning experiences.

Visitation and Visitor Use Overview

ANNUAL VISITATION. During the early years of New River Gorge National River–from 1984 to 1993–the number of annual visitors to the park grew rapidly from about 0.2 million to 1.0 million people. Since 1993 annual visitation has averaged 1.15 million, with slightly more visitors coming to the park in the late 1990s and early 2000s when compared to recent years. Actual visitation is probably higher than officially recorded by the NPS because visitor counting procedures do not include visitor use in remote areas of the park used for various adventure sports.

SEASONAL VISITATION. Summer is the time of year when the most people visit New River Gorge National River. Approximately 48 percent of the visitation occurs in June, July, and August, with July being the busiest month. Larger numbers of visitors also come to the park during the spring (May) and the fall foliage season (October). Visitation is lowest during the winter months from December through February, with the quietest time being January.

VISITOR PROFILE. The park has three distinct visitor markets:

- local residents who make regular use of the park and who live in the four-county region of Fayette, Nicholas, Raleigh, and Summers Counties
- regional residents who take day trips to the park and who live within 100 miles of Beckley, but outside the four resident counties
- non-resident tourists who either stay overnight or visit as part of longer trips and who live outside the 100-mile radius of Beckley

The current base of non-resident tourists is the estimated number of counted visitors to New River Gorge who either stayed overnight or passed through. In 2004, these two groups accounted for 74 percent of all visitation. Applying this figure to the 1.07 million estimated 2011 annual visitors to New River Gorge, about 793,000 non-resident tourists visit New River Gorge each year. These visitors are better educated and more affluent than the local resident base. In addition to being the target audience for tourism in the area, these individuals are increasingly becoming the target market for vacation and retirement home developments in Southern West Virginia.

A group of visitors enjoy the boardwalk trail that leads to the popular Sandstone Falls, which is the largest waterfall on the New River. (Photo: NPS/Gary Hartley)

The age distribution of visitors to the park reflects national age profiles. The largest share of visitors (35%) is in the baby boom generation from age 41 to 60. Just 12 percent of visitors are age 61 or older, suggesting that there may be more opportunities to draw older visitors in the future.

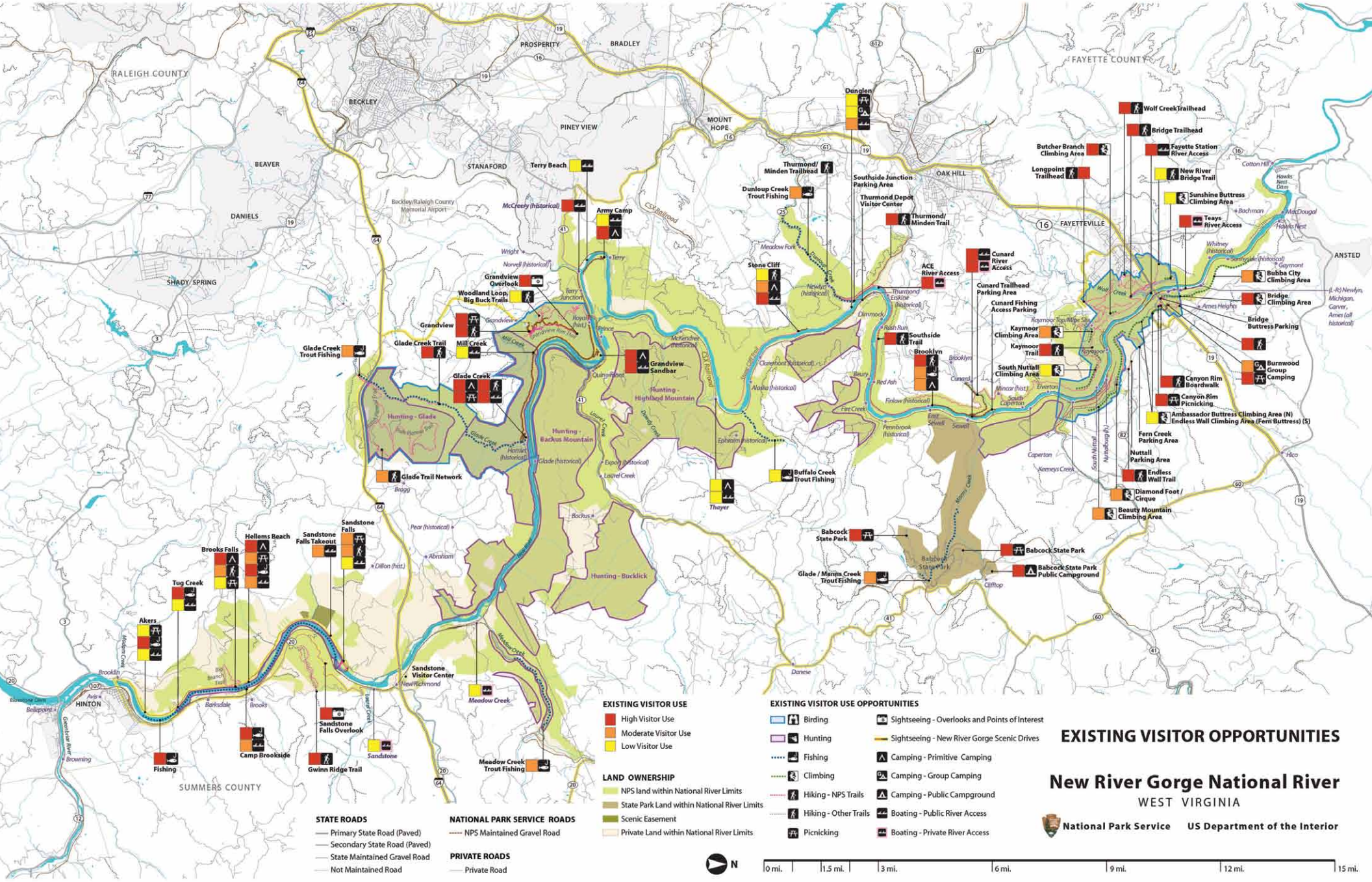
Visitors to the park tend to be better educated than the overall traveling public. Nearly half of visitors to New River Gorge have at least a college education, indicating a well-educated (and affluent) visitor base. Eighteen percent of visitors have graduate degrees and another 29 percent have bachelor degrees.

VISITOR GROUP SIZE AND TRAVEL PARTY TYPE. Groups visiting the park tend to be large, with 34 percent of parties containing five or more people and an overall average of 5.5 persons per party. However, 36 percent are parties of one or two people.

About two-thirds of visitors come in family groups or in groups composed of families and friends. Just 20 percent come as friends, demonstrating the family-oriented appeal of the area. Only 12 percent come to visit friends or family, unlike other parts of West Virginia where this market segment is near 40 percent of all visitors.

For about half of park visitors, New River Gorge is their primary travel destination and for about a third it is one of several travel destinations on their trip. About 20 percent of visitors arrive at the park without having planned to do so.

VISITOR LENGTH OF STAY. Visitors to the park are transient by comparison to other national park units, many while "stopping by" spontaneously while on a road trip to other destinations. A part of one day is all that most visitors currently spend at New River Gorge. Visits lasting less than an hour are typical for about 25 percent of visitors. Only about 25 percent of visitors spend more than five hours in the park. For those staying more than one day, 66 percent are there for two days and about 10 percent spend more than five days in the park.


EXISTING VISITOR OPPORTUNITIES
New River Gorge National River
WEST VIRGINIA
National Park Service
US Department of the Interior
EXISTING VISITOR USE
High Visitor Use
Moderate Visitor Use
Low Visitor Use
LAND OWNERSHIP
NPS land within National River Limits
State Park Land within National River Limits
Scenic Easement
Private Land within National River Limits
EXISTING VISITOR USE OPPORTUNITIES
Birding
Hunting
Fishing
Climbing
Hiking - NPS Trails
Hiking - Other Trails
Picnicking
Sightseeing - Overlooks and Points of Interest
Sightseeing - New River Gorge Scenic Drives
Camping - Primitive Camping
Camping - Group Camping
Camping - Public Campground
Boating - Public River Access
Boating - Private River Access
STATE ROADS
Primary State Road (Paved)
Secondary State Road (Paved)
State Maintained Gravel Road
Not Maintained Road
NATIONAL PARK SERVICE ROADS
NPS Maintained Gravel Road
PRIVATE ROADS
Private Road
N
0 mi.
1.5 mi.
3 mi.
6 mi.
9 mi.
12 mi.
15 mi.
RALEIGH COUNTY
BECKLEY
PROSPERITY
BRADLEY
PINEY VIEW
MOUNT HOPE
FAYETTE COUNTY
BEAVER
STANAFORD
DANIELS
SHADY SPRING
OAK HILL
FAYETTEVILLE
ANSTED
HINTON
SUMMERS COUNTY
Beckley/Raleigh County Memorial Airport
Terry Beach
Army Camp
McCreery (historical)
Grandview Overlook
Woodland Loop, Big Buck Trails
Grandview
Glade Creek Trail
Mill Creek
Glade Creek Trout Fishing
Glade Creek
Grandview Sandbar
Hunting - Glade
Hunting - Highland Mountain
Hunting - Backus Mountain
Hunting - Bucklick
Glade Trail Network
Thurmond/ Minden Trailhead
Dunloup Creek Trout Fishing
Southside Junction Parking Area
Thurmond Depot Visitor Center
Thurmond/ Minden Trail
Stone Cliff
ACE River Access
Cunard River Access
Cunard Trailhead Parking Area
Cunard Fishing Access Parking
Southside Trail
Brooklyn
Kaymoor Climbing Area
Kaymoor Trail
South Nuttall Climbing Area
Buffalo Creek Trout Fishing
Thayer
Babcock State Park
Babcock State Park Public Campground
Glade / Manns Creek Trout Fishing
Dunglen
Wolf Creek Trailhead
Bridge Trailhead
Butcher Branch Climbing Area
Longpoint Trailhead
Fayette Station River Access
New River Bridge Trail
Sunshine Buttress Climbing Area
Teays River Access
Bubba City Climbing Area
Bridge Climbing Area
Bridge Buttress Parking
Burnwood Group Camping
Canyon Rim Boardwalk
Canyon Rim Picnicking
Ambassador Buttress Climbing Area (N)
Endless Wall Climbing Area (Fern Buttress) (5)
Fern Creek Parking Area
Nuttall Parking Area
Endless Wall Trail
Diamond Foot / Cirque
Beauty Mountain Climbing Area
Tug Creek
Akers
Brooks Falls
Hellems Beach
Sandstone Falls Takeout
Sandstone Falls
Sandstone Visitor Center
Sandstone Falls Overlook
Camp Brookside
Gwinn Ridge Trail
Fishing
Meadow Creek
Meadow Creek Trout Fishing
Sandstone

Opportunities for Exploration, Adventure, Discovery, Solitude, and Community

The dramatic New River Gorge landscape and the whitewater recreation opportunities of the New River attract most first-time visitors to the park. Those new to the park quickly discover that within the spectacular gorge landscape and along the river are hidden the remains of dozens of towns that tell the stories of West Virginia's coal, lumber and railroading industries that flourished in New River Gorge during the late nineteenth and early twentieth century. For most visitors the spectacular terrain of the gorge, the free-flowing New River, and the tranquil setting – interspersed with the remnants of the gorge's human history – offer appealing opportunities for a variety of recreation and learning experiences.

A few experiences at New River Gorge are "classic" because they showcase the park's most significant natural and cultural resource. These experiences occur in a few specific places where visitors go most often – where they know they will most easily experience the best of the gorge and, typically, where the NPS has facilitated access and provides visitor services and interpretation.

CANYON RIM. From Canyon Rim, visitors experience dramatic rim-to-river views of the gorge, the New River Bridge, and the broader Appalachian Plateau. At the Canyon Rim Visitor Center the NPS orients visitors to the park and tells the park's stories through exhibits and interpretive programs. More people visit Canyon Rim than any other site in the park because of the views, the visitor center facilities and services, proximity to the New River Bridge, and its easy regional access from US Route 19. In 2007 approximately 405,300 people – or 34 percent of all park visitors – stopped at the Canyon Rim Visitor Center.

GRANDVIEW. At Grandview, visitors have a traditional family recreation experience, including picnicking, playing, hiking, and outdoor theatre. The site also provides access to spectacular rim-to-river views in the Turkey Spur area. Grandview opened for public use in 1941 as one of the state's early state parks, built by the Civilian Conservation Corps. Since then, several generations of West Virginians have grown up visiting Grandview and return on a regular basis to participate in family reunions that occur every weekend throughout the warm months in the Grandview picnic pavilions. A small visitor center provides information about the park and interpretive programs. Grandview is the second most visited site in the park. In 2007 approximately 243,560 people – or 21 percent of all park visitors – spent time at Grandview.

SANDSTONE FALLS. Sandstone Falls provides visitors the opportunity to experience the sights, sounds, and smells of the river. A boardwalk enables visitors to get very close to the river at the site of the park's largest waterfall and to experience the adjoining rare Appalachian flatrock community. As a former settlement site in the upper gorge, the site also offers also learn about the area's early history. Visitor facilities include a picnic area, interpretive waysides, a fishing beach, and a river access (below the falls). In 2007, approximately 88,490 people – or 7.5 percent of all park visitors – experienced the river at Sandstone Falls.

SANDSTONE VISITOR CENTER. Approximately 50,000 visitors stop in at the Sandstone Visitor Center each year to get information about the park – its resources and stories and the experiences available. Views of the upper gorge provide visitors with a sense of the power of the river and the rugged forested terrain.

ENDLESS WALL. A cliff top trail takes visitors through a beautiful pine forest and rhododendron thickets to the top of the sandstone outcrop known as the Endless Wall. The Endless Wall Trail takes visitors to Fern Point, Diamond Point, and numerous vantage points from which they experience the open expanse of the gorge and spectacular views of the Appalachian Plateau and the New River some 1000 feet below. From these vantage points, visitors experience the power of the river evidenced by the gorge and the sheer rock walls it has carved.

From top:

Grandview became part of New River Gorge National River in 1990, after more than 50 years as one of West Virginia's most popular day use state parks. (Photo: WRT/E. Clarke)

Picnic shelters are popular among local community members who reserve them for family picnics and celebrations. (Photo: WRT/E. Clarke)

Grandview features overlooks of the river, hiking trails, and playgrounds enjoyed by visitors of all ages. (Photo: WRT/E. Clarke)

KAYMOOR AND NUTTALLBURG. Visitors learn about the park's industrial heritage at Kaymoor and Nuttallburg. Those in good physical condition can hike down the 900 stairs to the former Kaymoor town site. Planned improvements will facilitate visitor access to the nationally significant Nutallburg Mining Complex and Town Site and enhance the visitor experience through new waysides and interpretive programs.

FAYETTE STATION ROAD. Visitors can experience travel through the gorge as it was before the New River Bridge was built in 1977. The 100-year old Fayette Station Road winds down to the bottom of the gorge, crosses the river on a narrow bridge, and winds back up the gorge wall to the rim. Wayside exhibits describe the history of mining, transportation, and life in the gorge. Along the way visitors can stop at the sites of historic coal mining communities, view rock climbers, see the New River Bridge from below, get close to the river, and view paddlers as they pass through the Fayette Station Rapid.

THURMOND. At Thurmond, visitors learn about the history and culture of New River Gorge during its industrial heyday. Thurmond – once a classic boomtown deep in the gorge – today remains surprisingly untouched except by the forces of nature seeking to reclaim the site. Now largely owned by the NPS, the town site is open for visitors to explore the ruins and remaining historic buildings stabilized by the NPS. The Thurmond Depot is now a small park visitor center where visitors are oriented to Thurmond through exhibits and interpretive programs. In 2007 approximately 7,500 people – or <1 percent of all park visitors – stopped at the Thurmond Depot Visitor Center.

Thurmond Depot served as many as 95,000 passengers a year, and today the town of Thurmond remains surprisingly untouched by modern development. (Photo: NPS/Gary Hartley)

Commercial outfitters offer trips for visitors of all abilities. Rafters prepare for a trip down the Lower New at the Cunard boat launch. (Photo: WRT/E. Clarke)

Visitor Use Activities

WHITEWATER PADDLING. The New River attracts paddlers of all abilities seeking the thrill, exhilarating rush, and social bonding of the whitewater experience. Some of these visitors are extreme adventurists who paddle the Class IV rapids of the lower gorge in rafts and kayaks. Most are outfitted paddlers riding the river with experienced guides in organized commercial trips. Increasingly families are making guided and unguided river trips with teenage children or in family flotillas, preferring the more gentle rapids of the upper gorge. Collectively the whitewater paddlers – including the outfitted paddlers who ride with commercial outfitters and the private paddlers who ride on their own – compose one of the largest groups of visitors to the park. In 2010 approximately 110,000 outfitted paddlers and 12,000 private paddlers – or over 11 percent of all park visitors – floated the New River.

The New River from Hinton to Brooks Falls/Sandstone Falls is wide and shallow and popular with recreational paddlers in canoes or fishermen in john boats with small outboard motors. The stretch from Sandstone Falls to Glade Creek (or Grandview Sandbar) is popular with fishermen and duck hunters in small motorized boats, and private paddlers in canoes. The stretch from Glade Creek to Grandview Sandbar is popular with an increasing number of beginning private paddlers because of the easy roadside shuttle, which enables visitors to make several runs in one day. The 13-mile stretch from McCreery to Stone Cliff contains many Class I to Class III rapids and is a popular one-day run for beginning kayakers and rafters. The stretch from Stone Cliff/Dun Glen to Cunard at normal water levels is the first half of the Lower New one-day trip and contains one very large Class III rapid and several long pools. Since development of the Cunard access in 1990, paddlers have had the option to skip the first half and instead put in at the beginning of the Class III to Class IV rapids. Commercial outfitters have accordingly developed this option into an express half-day trip. By far the most popular one-day or express whitewater run for all paddlers is the Lower New, either starting at Stone Cliff/Dun Glen during high water flows or starting at Cunard at normal or low water levels and ending at Fayette Station or the privately owned Teays river access sites.

OUTFITTED PADDLING OVERVIEW. Whitewater paddling is the largest sector of the state's outdoor recreation economy. The state of West Virginia Division of Natural Resources regulates commercial whitewater use (outfitted paddling). Since 1992, the state has limited the maximum daily commercial use on the Lower New to 3,875 outfitted paddlers. Limits are not in place for the Upper New.

Paddling on the New River – as elsewhere in the state – grew dramatically in the 1980s and 1990s, peaking in 2002. Since 1996 outfitted paddling has experienced a decline in volume statewide. At New River Gorge, in 2010 approximately 94,594 outfitted paddlers rode the lower New River (Cunard to Teays). While this was the highest paddling volume on the state's commercial whitewater rivers, it represented a 30 percent decline (-28,090 paddlers) when compared to 1996. In contrast, approximately 14,775 paddlers rode the upper New River (above Cunard) in 2010, representing a 35 percent decrease (-2,280 paddlers) when compared to 1996.

Outfitted paddler whitewater use of the New River begins on weekends in mid-March and builds into April to include some mid-week spring break business. While commercial whitewater use extends from March through April, almost 90 percent of the total yearly visitor use occurs in the four-month period of May through August. Even though the New River has sufficient water levels to run river trips in September and October, most commercial whitewater use shifts to the nearby Gauley River National Recreation Area for the scheduled fall releases from Summersville Lake. Outfitted paddler use then shifts back to the New River for the last two weekends in October, including Bridge Day, and occasionally for a day or two in November.

Outfitted paddler trips on the New River are directly related to water levels and the available public river accesses.

New River Outfitted Paddler Typical Trip Options

River Section	River Flow	Trip Length	Put-In	Take-Out
Upper New (Family Floats)	high (spring)	full day	Grandview Sandbar (NPS) or Prince (private)	Stone Cliff (NPS) or Stone Cliff (private)
	low (summer)	<full day	Stone Cliff (NPS) or Thurmond (private)	Cunard (NPS) or Cunard (private)
Lower New (Adventure Floats)	high (spring)	full day	Stone Cliff (NPS) or Thurmond (private)	Fayette Station (NPS) or Teays Landing (private)
	high (spring)	1/2 day (no lunch)	Cunard (NPS) or Cunard (private)	Fayette Station (NPS) or Teays Landing (private)
	low (summer)	<full day	Cunard (NPS) or Cunard (private)	Fayette Station (NPS) or Teays Landing (private)
	low (summer)	1/2 day (no lunch)	Cunard (NPS) or Cunard (private)	Fayette Station (NPS) or Teays Landing (private)

Source: WVPRO 2005

PRIVATE PADDLING OVERVIEW. Private paddlers float the New River in a variety of boats depending on the section of the river, the water level, and the paddler's skill level – including kayaks, canoes, shredders, duckie boats, and specially designed watercraft. Use generally occurs from mid-April through September with most private paddlers on the river during the warm summer months. In 2010, non-commercial use was estimated at 12,000 paddlers. Approximately 91 percent paddled the lower New River (Cunard to Teays), eight percent paddled the upper New River (McCreery to Cunard), and one percent paddled the upper New River (above McCreery).

Kayakers use the private boater take-out at Fayette Station on the Lower New River. (Photo: NPS/Gary Hartley)

Whitewater kayaking on the New River has changed tremendously with the development of new kayaks, equipment, and extreme paddling skills. Experienced kayakers are more likely to paddle throughout the year and at higher water levels than kayakers from ten years ago. Rodeo kayaks were developed to surf large river hydraulics and to perform tricks. These paddlers generally like to stay at one play spot on the river for long periods of time and avoid the commercial raft traffic by generally starting their trip much later in the day. Some rodeo boaters start at Cunard, paddle to the first play spot, paddle for a few hours, and then carry their boats back upstream along the railroad tracks to the Cunard parking area. This type of stationary use is expected to increase in the Kenney Creek area with the recently improved state road access. Creek boats are generally short but high volume kayaks developed to navigate narrow rocky streams with large vertical drops. Creek boaters like to paddle the steep tributary creeks, such as Glade, Piney, Mann, and others during periods of high water runoff. These paddlers are very skilled and have very different access needs and user preferences.

CAMPING. Visitors to the park seek opportunities to camp in the frontcountry and backcountry as part of a variety of outdoor experiences. Camping use is greatest from May through September. Campsites are generally full on weekends from Memorial Day through Labor Day. Four types of camping are available:

- **Public Campgrounds.** The state of West Virginia operates a developed public campground at Babcock State Park with full services for recreational vehicles and tent camping.
- **Primitive Campgrounds.** The NPS provides opportunities for primitive camping at nine locations. These are used by a wide variety of visitors – families, paddlers, hikers, bikers, climbers, etc. Access is via driving, hiking, and/or paddling. Most sites are located adjacent to the New River. Facilities include designated campsites, each with a

parking area, fire ring, and picnic table. Vault or portable toilets are available but there is no potable water. There is no fee for camping, but campers are required to register with a ranger at the earliest opportunity. Stays in the same area are limited to no more than 14 days within a 28-day period within any park campground and/or camping area.

- **Group Campgrounds.** The park has two group camping areas. Burnwood is located off U.S. Route 19 across from the Canyon Rim Visitor Center. Dun Glen is located along the New River across from Thurmond. Access is by driving. Facilities include designated campsites, with a parking area, fire ring, and picnic tables. Comfort stations are available but there is no potable water. Both sites require a special use permit.

  Camping by commercial groups at the group campgrounds is permitted only from October 1 through the third Friday in May. This policy is in effect to eliminate conflicts between user groups and to eliminate the safety hazard and visitor experience impacts associated with commercial vehicle traffic on the narrow Glade Creek during the peak summer visitation period.
- **Undesignated Backcountry Camping.** Areas suitable for backcountry camping occur throughout the park at walk-in or boat-in sites generally along the river and adjacent to trails. Backcountry sites are not designated, although camping is not permitted within 100′ of water sources or within 25′ of park and public roads, park buildings, official trails, developed river access sites, and developed day-use areas. Other backcountry camping prohibitions are specifically identified in the *Superintendent's Compendium* (NPS 2007). The most heavily used backcountry sites are along the Glade Creek Road, Brooklyn-Southside Junction Trail, and Stone Cliff Trail. Although use of backcountry sites in remote locations is not well documented, periodic ranger patrols have identified approximately 39 undeveloped sites along the river that receive regular use. Some of the most popular sites are occupied most nights during the summer season. These generally include sites at Quinnimont, Route 41, Upper Mill Creek, McKendree, Sewell Beach, Upper Sewell Beach, Ender Waves, and Apple Orchard. Several boat-in and walk-in sites, such as Arbuckle Creek, Manns Creek, and Indigestion, are owned by outfitters and receive heavy use as the overnight camp for their 2-day trips.

PICNICKING. Visitors enjoy opportunities for picnicking at developed NPS facilities and at undesignated picnic sites in both the frontcountry and the backcountry:

- **Developed Picnicking Facilities.** Day-use facilities for picnicking (off the river) at the park are available at nine locations. Grandview is the most popular picnicking site in the park. Its five picnic shelters – with combined capacity for almost 600 people per day – are used from the end of May through mid-October, primarily for family or class reunions and company picnics. Reservations for the shelters on summer weekends are generally filled months in advance. Other popular picnic facilities in the park are Glade Creek and Canyon Rim, as well as the two picnic areas at Babcock State Park that the state of West Virginia operates.
- **River Lunch Stops.** A highlight of most river trips or backcountry fishing trips is a picnic on the bank of the New River or on one of many beaches or bars on the river. Approximately 14 sites on the river experience heavy visitor use as lunch stops, all primarily by outfitted paddlers; 10 of these sites are owned by the NPS and 4 are owned by outfitters. Another 16 sites experience moderate use, also primarily by outfitted paddlers; 14 of these sites are owned by the NPS and two are owned by outfitters. Private paddlers tend to use smaller sites along the river avoiding sites used by outfitted paddlers, such as Big Rock, Bennett Hole, and Middle Kenney Beach. No facilities are provided at any of these sites for trash collection or for visitor sanitary waste collection.

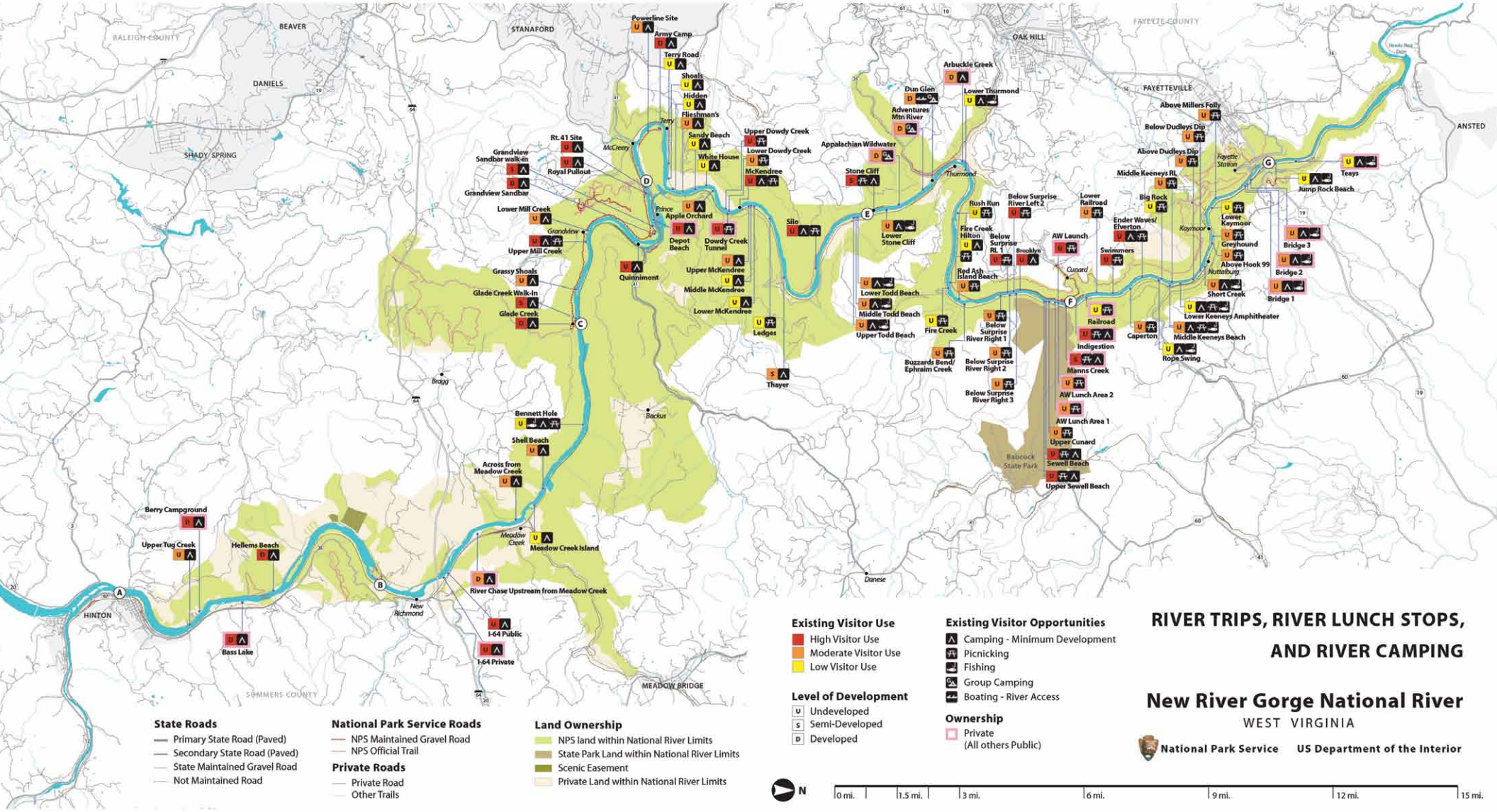
The Grandview unit of the New River Gorge National River provides many picnic areas for visitors and community members to recreate and enjoy the scenery. (Photo: WRT/E. Clarke)

RIVER TRIPS

New River (upstream) — **New River (downstream)**

- **A** Upstream - Hinton (Private)
- **B** Sandstone Falls (Public)
- **C** Glade Creek (Public)
- **D** McCreery (Public) Grandview Sandbar (Public)
- **E** Stone Cliff (Public)
- **F** Cunard (Public)
- **G** Teays Landing (Private) Fayette Station (Public)

Canoe, Fish, Batteau (Class I – II+ Rapids)
Private Paddle (Class I – II+ Rapids)
Fishing Float (Class I – II+ Rapids)
Family Float (Class I – III Rapids)
Family Float (Class I – III Rapids)
Adventure Float (Class III – IV Rapids) (<4,500 CFS)
Adventure Float (Class III – IV Rapids) (>4,500 CFS)



Existing Visitor Use
- High Visitor Use
- Moderate Visitor Use
- Low Visitor Use

Level of Development
- U Undeveloped
- S Semi-Developed
- D Developed

Existing Visitor Opportunities
- Camping - Minimum Development
- Picnicking
- Fishing
- Group Camping
- Boating - River Access

Ownership
- Private (All others Public)

State Roads
- Primary State Road (Paved)
- Secondary State Road (Paved)
- State Maintained Gravel Road
- Not Maintained Road

National Park Service Roads
- NPS Maintained Gravel Road
- NPS Official Trail

Private Roads
- Private Road
- Other Trails

Land Ownership
- NPS land within National River Limits
- State Park Land within National River Limits
- Scenic Easement
- Private Land within National River Limits

N

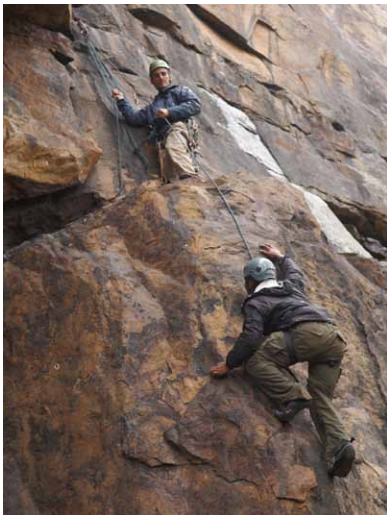
0 mi. | 1.5 mi. | 3 mi. | 6 mi. | 9 mi. | 12 mi. | 15 mi.

RIVER TRIPS, RIVER LUNCH STOPS, AND RIVER CAMPING

New River Gorge National River

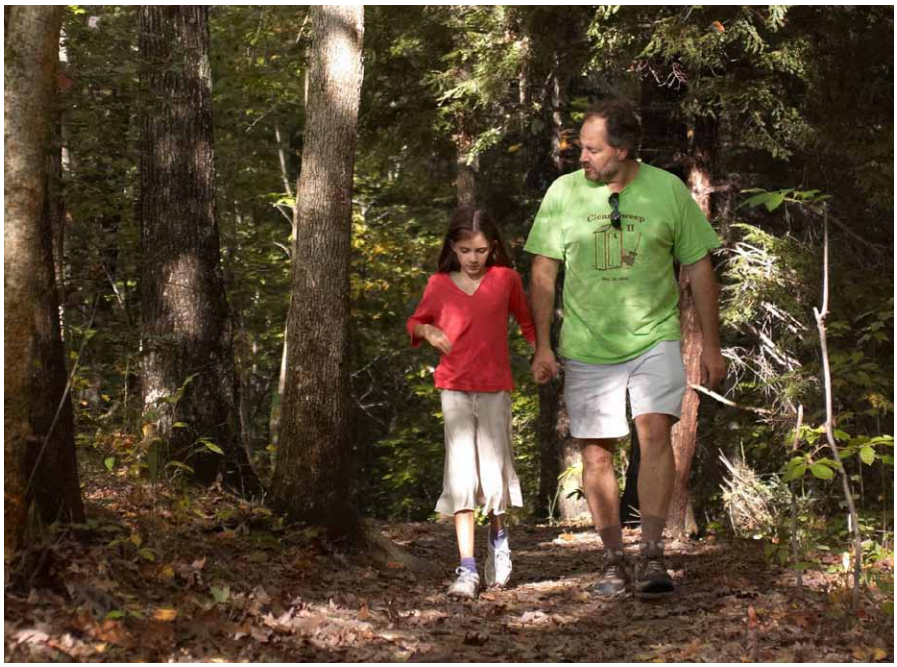
WEST VIRGINIA

National Park Service — US Department of the Interior



CLIMBING. The hard sandstone walls of New River Gorge offer some of the best climbing opportunities in the eastern United States. In recent years the gorge has become one of the most popular climbing areas in the country. Climbers most heavily use the Nuttall Sandstone cliffs that extend for five miles upstream and three miles downstream of the New River Bridge. The cliffs range from 30 to 120 feet in height and are highly fractured, offering an abundance of crack and face routes. Approximately 1,670 climbing routes provide a good variety of traditional and sport climbing routes, although most routes favor the more advanced and expert climber. About 1,000 routes are traditional climbs, where the climber places protection from falls as they climb, and about 670 routes are "sport" climbs, where the protection is fixed in place using bolts and hangar. The majority of routes are a 5.9 and harder, and most sport routes are in the 5.10 to 5.12 range. First time visitors and those looking for roped climbs concentrate in the Bridge Buttress area.

In 2007, approximately 15,900 visitors climbed the rock walls of the gorge, the largest number since 1994 when NPS began counting climbers. The number of climbers in the park annually has tripled since 1994. Visitors climb privately or with commercial outfitters. In 2007, the park issued commercial use authorizations to 14 commercial outfitters in the park, who provided guide services to 6,676 visitors (42% of total climbers); about 51 percent of the guided climbers were relatively inexperienced and used routes in the bridge climbing area.



From top:

"The New" is one of the most popular climbing areas in the country, with more than 1600 established rock climbs along the very hard, sandstone cliffs. (Photo: NPS/Gary Hartley)

A destination for hiking, the park offers a variety of trails from easy to difficult terrain. Families enjoy a walk in the woods under a canopy of Hemlocks. (Photo: NPS/Gary Hartley)

HIKING. Approximately 76 miles of official NPS trails provide visitor access to the park's frontcountry and backcountry areas. Trails vary from easy to difficult in terrain and from 0.1 mile to 8.6 miles in length. Many of the park's trails were preexisting at the time the NPS acquired property and follow the alignments of now abandoned roads and railroad grades from the park's industrial era. The NPS has constructed several new trails, most notably the Fayetteville trail complex – including the Fayetteville Trail, the Town Park Loop, and the Timber Ridge Trail – which was designed and built with assistance from volunteers and the International Mountain Bike Association (IMBA).

In 2007, approximately 67,900 hikers were counted on the park's official trails. Visitor use of hiking trails in the park is highest in the north end of the park and in the Glade Creek area. Trails at Grandview and at Sandstone Falls are also heavily used.

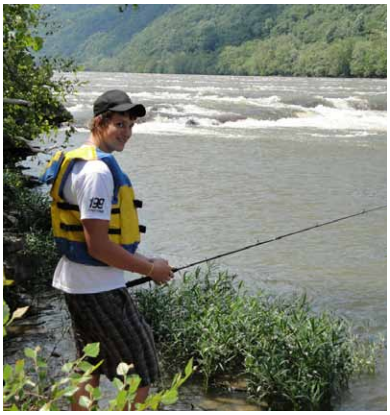
Mountain biking is a popular sport on designated trails in the park. Bikers enjoy a view of the bridge along the Kaymoor Trail. (Photo: NPS/Gary Hartley)

BIKING. Nineteen trails are open to bicycles, providing access to a variety of places such as overlooks, the New River, and historic sites in the lower gorge. Opening additional new or existing trails to bicycle use will require park-specific planning and the promulgation of a special regulation.

HORSEBACK RIDING. Exploring the park by horse or with pack animals occurs only on trails where stock use will not present a safety hazard or other user group conflicts. The 2.7-mile Brooklyn Mine Trail is the only trail in the park that is open to horses and pack animals. The trailhead is at the top of Cunard Road. From the trailhead it ascends via a park administrative road along a section of old strip mine to the former coal mining site of Brooklyn. From Brooklyn the trail continues on to the Brooklyn-Red Ash Trail Trailhead.

Other areas within the park where horses are used include Babcock State park and private land owned by outfitters.

WATCHING WILDLIFE. Opportunities for watching wildlife occur throughout the park from trails, overlooks, park roads, and the river. The most popular wildlife viewing is bird watching, an activity that has become increasingly popular in recent years in the park. The park is globally significant in providing critical habitat for neotropical migratory birds, especially for wood warblers. The bird diversity attracts birders from around the world who visit the park primarily during the spring. Birders seek out diverse habitat within the park to maximize the number of species seen, typically looking for places where they can get to different elevations along rim-to-river routes. The most popular area for birding is the lower gorge from Keeney Creek to the Teays Landing river access, with the greatest concentration of birders visiting the Fayette Station Road corridor.



A young participant in the park's youth program, Rangers-In-Training, enjoys fishing along the calmer stretches of the New River near Camp Brookside. (Photo: NPS/Gary Hartley)

FISHING. Fishing is one of the most popular activities on the New River. The river's high fish diversity makes it an excellent warm-water fishery. Spring and fall are the best times of the year to fish the New River, when the water is cooler and most fish species are more aggressively feeding. Anglers regularly fish upstream of Sandstone Falls by wading, from the banks, or from boats. The New River from the I-64 bridge at Sandstone to Grandview Sandbar is designated "catch and release" for smallmouth bass, largemouth bass, and spotted bass, and is generally fished from boats since there is little road access to the river upstream of Glade Creek. Fishing in the New River downstream of Glade Creek is very popular wherever road access allows fishermen to either hike in or launch a boat, such as along Glade Creek Road or at the river accesses at Brooklyn, Cunard, Fayette Station, and Teays Landing.

Trout fishing occurs in several tributaries to the New River. WV DNR stocks several tributaries with trout and the local chapter of Trout Unlimited stocks the upper stretch of Glade Creek. Upper Glade Creek, including the 3-mile stretch above the pedestrian bridge, receives heavy put-n-take fishing pressure, especially following stocking. Lower Glade Creek, including the 3-mile stretch from the pedestrian bridge to the New River, is usually stocked on an annual basis with brown trout fingerlings. Buffalo Creek, which is designated "fly-fishing only", has a self-maintaining population of brook trout.

Visitors can access the river and its tributaries for fishing from the river bank anywhere within the park where the land is owned by the NPS or the state; elsewhere visitors must receive permission from private landowners. Access onto the river for fishing is possible from any of the NPS or state public river accesses within the park. Anglers in the upper gorge most frequently use the Akers, Tug Creek, Hellems Beach, and Camp Brookside public river accesses. Additional popular walk-in fishing spots along the river include Lower Keeney Creek, Middle Kenney Beach, Short Creek, Todd Beach, Lower Stone Cliff, and Bennett Hole.

Fishermen regularly cross over or walk along the active railroad tracks to reach their favorite spots. The upper New between Hinton and Cunard provides many large pools that are often fished from shore, from john boats, and by wading in the river. Fishermen often camp at the established primitive camping areas and also at many undeveloped sites along the river, sometimes for several days. Trout fishing in the tributaries is generally a day use activity. The state currently licenses approximately 60 commercial guides/outfitters to operate on the New River. Commercial outfitters primarily use guided rafts/boats on several sections between Sandstone Falls and Fayette Station.

HUNTING. New River Gorge National River when combined with the Bluestone National Scenic River and the Gauley River National Recreation Area forms the largest public hunting area in southern West Virginia. Hunting is permitted within most of the New River Gorge National River, but is restricted from the former Grandview State Park area and other high use areas. Much of the land still in private ownership within the park boundary is leased to private hunting clubs and is restricted to club member use only.

No research is available describing hunting patterns and hunter intensity at New River Gorge National River However, national and state trends suggest that big game hunting is more likely to occur than small game hunting within the park boundaries. Deer hunting probably is the most popular activity, based in part on historical and current hunter numbers, days afield hunting, and hunting expenditures. National and state trends also suggest that squirrel hunting is the most popular small game activity. Due to small sample sizes within the national surveys, existing information is not sufficient to make firm conclusions about preferences or intensity of migratory bird hunting and other animal hunting within the park boundaries.

Recent study of the impacts of hunting in the park indicates that hunting in accordance with applicable state regulations has not caused adverse effects on any of the species of mammals or birds which are or may be hunted and that currently occur within the park boundaries (Hooper et al 2006). Recent study further indicates that no evidence exists to support the position that any other species found within the park boundaries have been affected adversely by hunting (Hooper et al 2006).

Empirical information from park ranger patrols provides an overview of hunting preferences and locations where hunting occurs in the park. Archery and general firearms seasons appear to be more popular deer hunting activities than are antlerless and muzzleloader seasons. There has been a perceived increase in bear, squirrel, grouse, turkey, and rabbit hunting in the park. Upland plateaus and gentler slopes have become increasingly popular as the NPS has acquired additional lands and opened them to the public for hunting. Areas where hunting is concentrated include Highland Mountain, Backus Mountain, Beury Mountain, and the Glade Creek watershed.

DRIVING SCENIC ROADS. For those who visit the park by private vehicle or bus there are a number of driving opportunities on roads that provide access to the park's scenic resources, as well as take visitors to points of interest where other experiences are offered. Scenic drives in the park follow along the rim, along the river, and from the rim to the river. Vistas from the rim drives offer views of the sandstone walls of the gorge and the river below. At the bottom of the gorge views from the river level drives come and go as visitors travel in and out of forested areas and move to and from the river's edge. The NPS has designated five roads in the park as scenic drives that it recommends to visitors wanting to see the park by vehicle.

DISCOVERING HISTORY. The opportunity for cultural discoveries at New River Gorge is extraordinary. Park visitors no matter how they explore the park – by car, by foot, by bicycle, or by boat – have opportunities to discover history at sites throughout the park in its remaining communities, in its abandoned town and industrial sites, and in places that are hidden within the forest and scattered throughout the gorge. Most sites are ruins of former industrial and settlement sites that have the potential to tell the park's stories related to early settlement and the coal, lumbering, and railroading industries.

OPPORTUNITIES FOR VISITORS WITH DISABILITIES. The NPS is committed to implementing all practicable efforts to make NPS facilities, programs, services, employment, and meaningful work opportunities accessible and usable by all people, including those with disabilities. Accordingly, most administrative offices, some overnight visitor accommodations, and most interpretive and visitor service facilities are or will be made accessible. Undeveloped areas, such as those outside the immediate influence of buildings and roads, will not normally be modified to make them accessible.

In accordance with NPS policy, the park has made numerous improvements to park facilities in recent years to enhance accessibility. Today, most developed visitor facilities at New River Gorge are generally accessible to visitors and employees with disabilities. While river access is generally possible for disabled paddlers and fishermen, the uneven surface of the boat ramps inhibits wheelchair access and generally requires disabled visitors to be assisted when getting onto boats. Floodproofing required for structures along the river's edge severely limits improvements that can be made to enhance disabled access for fishing.

From top:

Keeney's Creek Road offers visitors a beautiful scenic drive into the gorge along winding gravel roads lined with rhododendrons. (Photo: WRT/E. Clarke)

Miners came from everywhere to work the mines at Kaymoor, which employed more than 800 workers during peak production. (Photo: WRT/E. Clarke)

Cochran Farm is an example of the subsistence farm where settlers hunted, fished, gathered food, raised livestock, and farmed to supply their basic necessities. (Photo: WRT/E. Clarke)

From left, clockwise:

Bridge Day is West Virginia's largest one-day festival drawing more than 100,000 visitors each October who enjoy food, crafts and vendors, scenic views and BASE jumping. (Photo: NPS/Gary Hartley)

The first official Bridge Day was celebrated in 1980 when five parachutists jumped from the bridge into the gorge. Today, hundreds of jumpers participate in the festivities each year. (Photo: NPS/Gary Hartley)

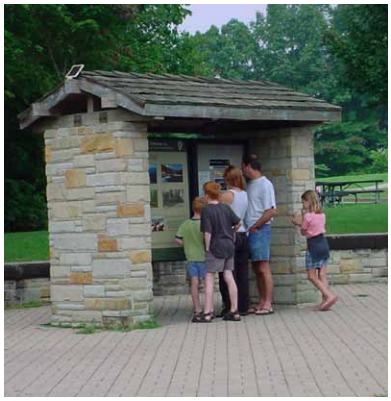
Grandview is home to Theatre West Virginia which features outdoor drama presentations from June through August. (Photo: WRT/E. Clarke)

Special Events and Special Uses

BRIDGE DAY. Bridge Day is an annual festival that began in 1977 and has evolved into one of the largest festivals in West Virginia. The Bridge Commission hosts the event on the third Saturday of October. Each year as many as 100,000 people crowd onto the New River Bridge to view approximately 450 BASE jumpers propel themselves from the bridge and land in or near the New River, flowing 876 feet below. During the festival the bridge and most of Fayette Station Road are closed to the general public for motor vehicle traffic.

THEATRE WEST VIRGINIA. Theatre West Virginia has presented outdoor summer theatre at the Cliffside Amphitheatre at Grandview since 1960. The organization was founded by concerned citizens from the Raleigh County region who desired to present West Virginia's unique culture to as wide an audience as possible. The theatre is known for its traditional performances of the Hatfields & McCoys and Honey in the Rock, and in recent years for special performances of Phil Dirt and the Dozers.

RACES. Since the late nineties various groups have hosted adventure races, triathlons, downriver races, and bike races in the park. Adventure races typically include around-the-clock orienteering with hiking, biking, paddling, and rappelling. Five to ten races have occurred per year, ranging in size from approximately 30 to 200 athletes.



From top:

Visitors study a bulletin board at Canyon Rim Visitor Center that provides general information to help them explore the park. (Photo: WRT/E. Clarke)

The boardwalk hike at Sandstone Falls features wayside exhibits to provide information for visitors specific to the site. (Photo: WRT/E. Clarke)

Visitors to the Sandstone Visitor Center can learn about the natural and cultural history of the New River and its watershed through interactive interpretive exhibits. (Photo: NPS/ Gary Hartley)

Visitor Orientation

PRE-VISIT INFORMATION AND ORIENTATION. Visitors planning their first trip to New River Gorge National River primarily rely on information obtained from friends and relatives who have been to the park, the internet, and travel guides and tour books. Other sources of information used less frequently include commercial outfitters, the West Virginia travel center, and newspaper and magazine articles. The park website used by approximately 18 percent of visitors in advance of a trip provides directions to the park and includes a variety of information useful for trip planning, such as park activities, interpretive programs, downloadable maps, and general park management news.

VISITOR CENTERS. The park Interpretation Division manages four visitor contact facilities. Canyon Rim and Sandstone are open year round, seven days a week, except for Christmas and New Years Day. In the summer, from June to August and on weekends through October smaller visitor centers are open at the Thurmond Depot and at Grandview when staff is available. At the visitor centers visitors see exhibits, shop at the park stores, and learn about activities, such as ranger-led tours, self-guided tours, and recreation opportunities. Approximately 43 percent of the park's visitors use the information available at the visitor centers from the information desk and exhibits to become oriented to the park.

PARK PUBLICATIONS. Most visitors to the park rely on the park brochure for basic information on attractions, recreation opportunities, and travel directions. The Three Rivers Review, the park visitor guide features articles on resource management projects, current events, maps, and other information helpful to those planning a visit or already at the park. Pamphlets address the needs of mountain bikers, rock climbers, campers, and fishermen. The staff also compiles and prints lists of area outfitters and accommodations. A full-color, four-panel brochure is offered to visitors at state welcome centers and tourism locations throughout the region.

PARK BULLETIN BOARDS AND INFORMATION BOARDS. Boards located throughout the park include standardized "You are Here" map boards and more than forty large bulletin boards and kiosks, as well as fifty smaller "birdhouse" bulletin boards and brochure racks.

SIGNAGE. Visitors come to the park on many regional and local roads, many of which are narrow winding mountain roads. The NPS and WV Division of Highways have cooperated to provide signage on regional roadways and on local roads that provide access to heavily used visitor facilities. Many areas remain poorly signed, causing confusion for some visitors not familiar with the area.

Interpretation

VISITOR CENTER EXHIBITS. The park's visitor centers offer a variety of permanent interpretive exhibits as well as rotating seasonal exhibits. The native plant gardens at Sandstone Visitor Center and Canyon Rim Visitor Center greatly improve the aesthetic appearance of the areas, naturally promoting the value and beauty of native plants in landscaping.

WAYSIDE EXHIBITS. Wayside exhibits have been installed at Kaymoor, Canyon Rim, Thurmond, Grandview, Nuttallburg, Sandstone Falls, along Fayette Station Road, and in Glen Jean.

PUBLICATIONS. A variety of publications provide interpretive information for natural resource areas, historic sites, and scenic resources. These include: a scenic driving tour brochure; brochures for the Sandstone Falls, Grandview, and Fayette Station areas; trail brochures for different parts of the park; a walking tour brochure for the Thurmond Historic District; and, an audio guide to Fayette Station Road, available on loan in CD or tape formats.

Interpretive Programs

WALKS AND TALKS. Ranger walks and talks are held mostly in the spring through fall seasons, and are publicized on the park website and in the local media. Some programs are held indoors and others on the grounds of visitor centers or out on trails or by the river. Topics include archeology, endangered species, water quality, wildflowers, bird walks, as well as basic armchair introductions to popular recreational activities, such as whitewater boating and climbing. Sessions are held on Leave No Trace ethics, and what to do if you are lost in the woods. Popular programs feature former coal miners talking about living and working in the gorge. Astronomy walks draw audiences appreciative of the park's night sky. Ranger on a Rock and Ranger's Choice are informal programs that adapt to the audience. They capture interpretive moments with visitors who might not be inclined to attend a more formal presentation.

JUNIOR RANGER PROGRAM. The Junior Ranger Program is available for students and families who visit the park. The booklets can be picked up at any park visitor center and provide youngsters ages 6-12 an enjoyable and meaningful way to explore the resources and history of the park. Upon completion of the program, junior rangers receive a certificate and patch.

SPECIAL REQUEST OUT-OF-THE-PARK PROGRAMS. These programs include seasonal weekly Bluestone Walks at Pipestem Resort State Park; Wildflower Weekend at Babcock State Park; Tellebration, an annual national storytelling event; Kultural Kinnikinnick, an all-day celebration for National American Indian Heritage Month, presented at Tamarack; participation in the area Migratory Bird Festival; and night sky and endangered wildlife programs presented at nearby state parks. West Virginia Conservation Camp provides teenagers with skills and interdisciplinary career contacts with rangers and managers from many agencies. The Division of Interpretation also participates in local parades, designing floats for specific parade themes and highlighting the NPS connection to local communities. Other special activities include creation and staffing of displays for National Park Week, Earth Day, and National Trails Day at the WV State Capitol.

INFORMAL CONTACTS. Informal contacts with rangers occur during Bridge Day, on the New River Train fall foliage excursion trips, and Railroad Days. These are excellent opportunities to increase visitor understanding and appreciation of the park. For example, over 1,000 people a day interact with park rangers on each of the four New River Train trips each fall. Roving contacts are also made within the park throughout the year, on trails, in parking lots, and river access areas. The Ranger on the Rock prior to Theater West Virginia performances is another opportunity for visitor contact.

Educational Programs

The Interpretation Division offers natural and cultural resources education programs to school groups and community organizations as an onsite visit or as an outreach program in the classroom. The programs provide hands-on opportunities for learning and promote the protection of natural and cultural resources within the park and the environment as a whole. All programs support the Instructional Goals and Objectives for West Virginia Schools.

K-5TH GRADE ENVIRONMENTAL EDUCATION. Environmental education is offered directly in the classroom and incorporates concepts taught at each grade level. Programs focus on the natural history or cultural heritage of the New River Gorge and southern West Virginia. A park ranger visits each classroom of participating elementary schools in the fall and again in the spring to present a one-hour program. Topics are national parks (K), habitats (grade 1), communities (grade 2), ecosystems (grade 3), West Virginia history (grade 4), United States history and preservation (grade 5), and responsible action (grade 6).

WATER RESOURCES PROGRAM. The Water Resources Program promotes appreciation of water with a focus on current and critical issues related to water quality within the New River watershed. The six-week program includes a weekly ranger presentation with curriculum activities for the following units: the New River watershed, water and people, point and non-point source pollution, water quality, aquatic species, and protecting our water resources.

ENVIRONMENTAL EDUCATION IN THE PARK. This program includes the annual Children's Water Festival in September. Students from local schools and colleges come to the park for hands-on water quality education and experience. All programs support the Instructional Goals and Objectives for West Virginia Schools.

Several other programs are scheduled by request periodically and are intended primarily for a young adult and older audience. For example, several multi-day Leave No Trace Train-the-Trainer courses have been taught to local scout leaders, NPS and state park employees, and river and rock climbing outfitters. The park recently worked with the West Virginia Outfitters to develop and present a guide training seminar and resources materials.

From left:

The park's education coordinator provides instructions to community youth who are participating in a series of recreational park adventures. (Photo: NPS/Gary Hartley)

NPS park interpreter stands his post as the "Ranger on the Rock" at Grandview, describing the views from the overlook to a group of students from nearby Raleigh County. (Photo: NPS/Gary Hartley)

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