



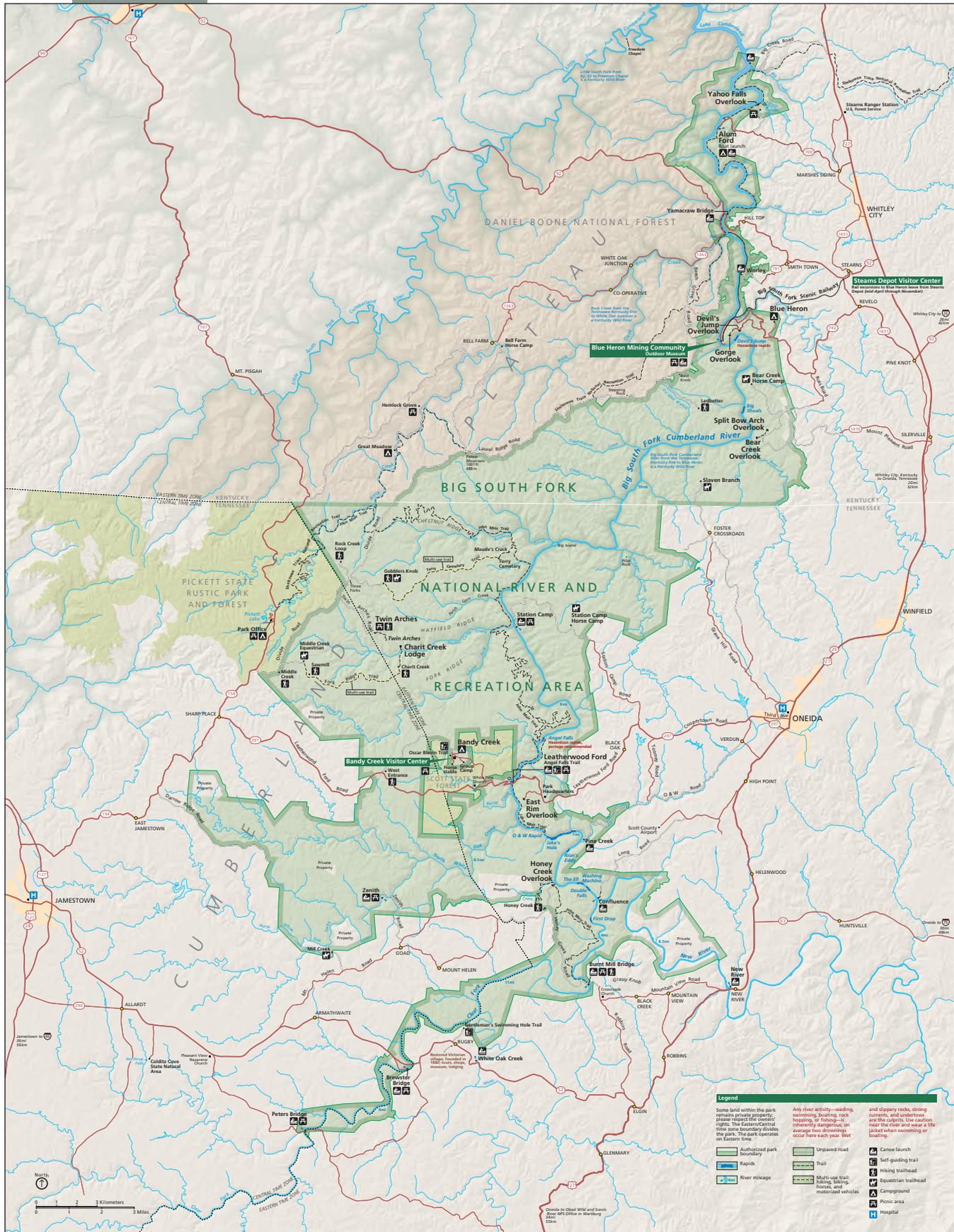
Foundation Document

Big South Fork National River and Recreation Area

Kentucky and Tennessee

October 2017





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Mission of the National Park Service

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

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

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

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

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



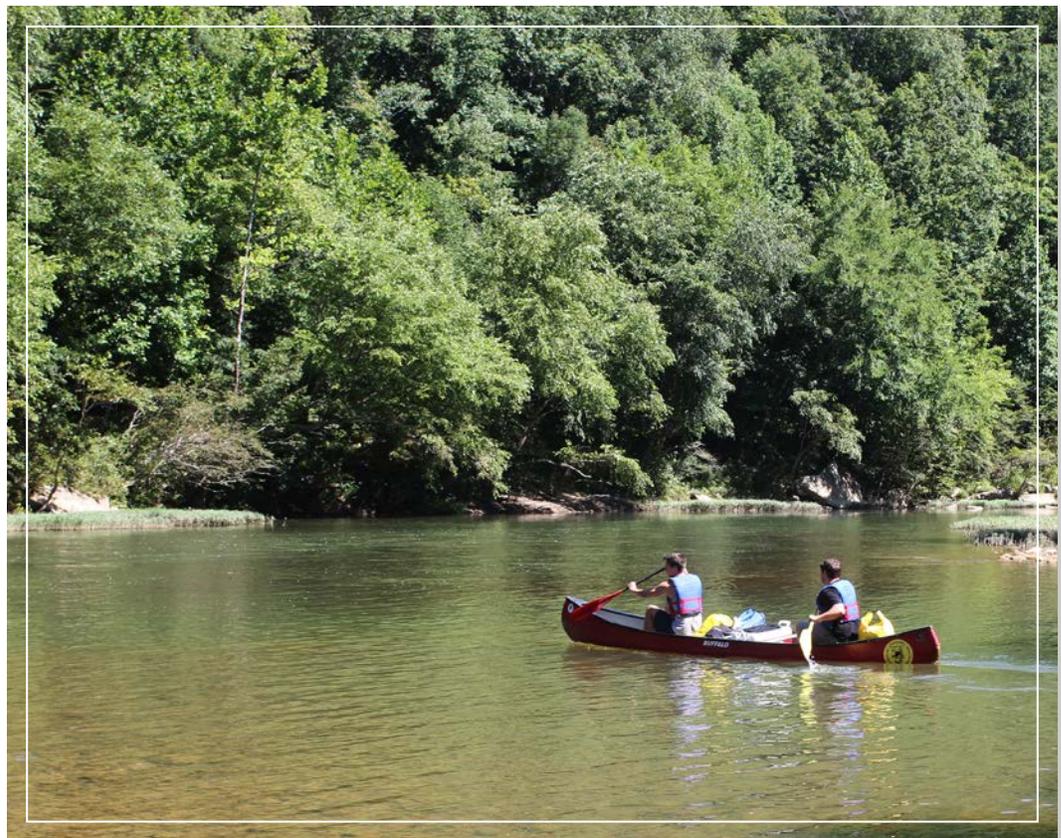
The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.

Introduction

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

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

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



Part 1: Core Components

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

Brief Description of the Park

Located in north central Tennessee and southeastern Kentucky, Big South Fork National River and Recreation Area encompasses just less than 125,000 acres of rugged terrain within the Cumberland Plateau. The area boasts 90 miles of scenic gorges and sandstone bluffs, is rich with natural and historic features and was established to provide visitors with a wide range of outdoor recreational activities. Together with the state and federal lands that share the north and western boundaries, the area offers a diversity of habitats in which plants and animals abound. Within the Big South Fork National River and Recreation Area boundary, numerous pristine streams flow into the Big South Fork of the Cumberland River. Over time, this ceaseless moving water has carved the sandstones of the plateau into the impressive cliffs, arches, and chimneys found throughout the park. The Big South Fork of the Cumberland River (Big South Fork River) begins within the unit at the confluence of the New River and Clear Fork, and flows northward for approximately 49 miles. It is a free-flowing river for approximately 37 of the 49 miles, until it reaches Lake Cumberland.

The focal point of the Big South Fork National River and Recreation Area is the massive gorge, with its sheer bluffs at the gorge rim towering over wooded talus slopes and naturally fluctuating river (and its tributaries) below. The gorge, as defined by the enabling legislation, represents roughly one-half of the total acreage in the unit. The remaining acreage is considered the “adjacent area.” The landscape is dominated by upland and ravine forest communities, although a wide variety of specialized habitats are supported on floodplains, in protected coves and ravines, on moist, north-facing slopes, and on sandstone glades (sandstone caprock with dry, shallow soils).

Within the park, numerous creeks and streams join the erosive power of the Big South Fork River, resulting in deep ravines that have been carved into the surrounding sandstone. This hydrology and other weathering processes have created an impressive array of cliff faces, arches, mesas, chimneys, and rock shelters throughout the park.

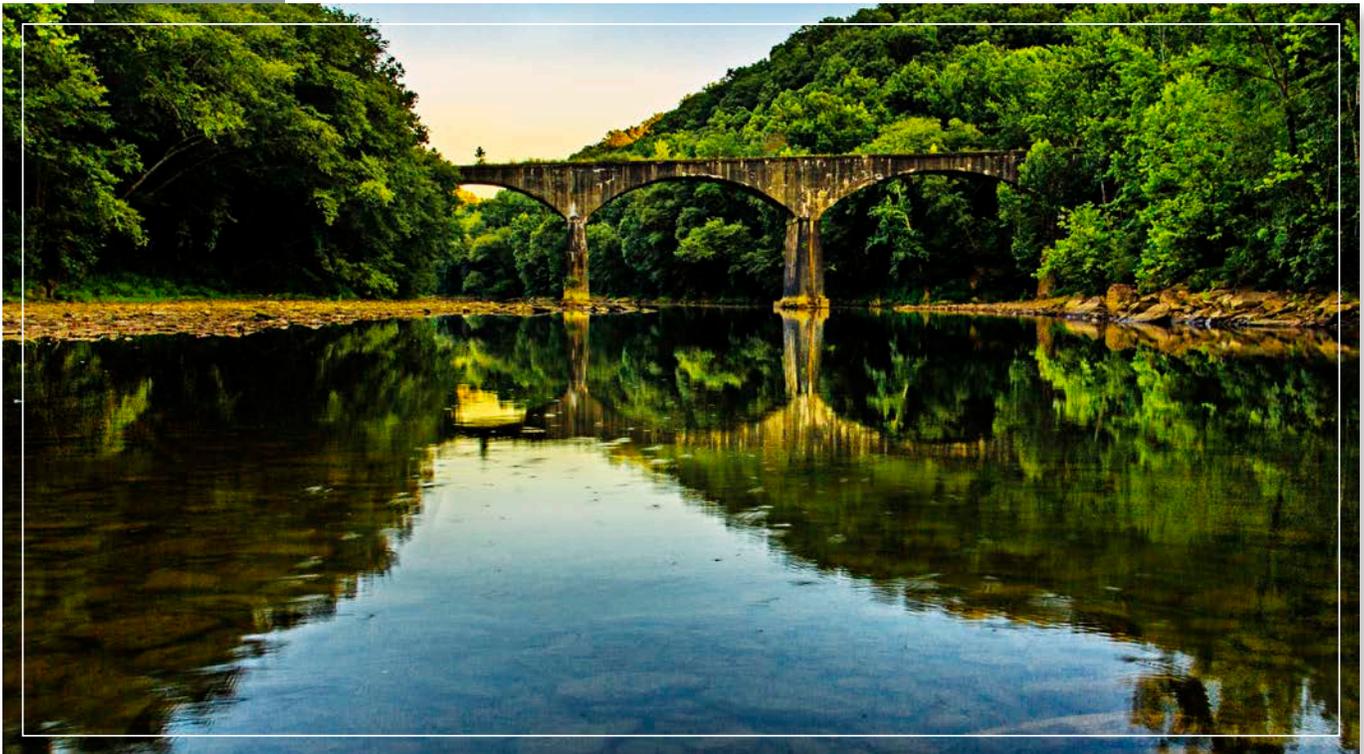
Big South Fork National River and Recreation Area has a long human history spanning the last 10,000 years. From the prehistoric Paleo Indians to the coal miners of recent time, the park is an area with a rich cultural tapestry. Approximately 350,000 archeological artifacts have been found in the park, from American Indian projectile points to tools used by early European and American settlers. Both the Shawnee and Cherokee tribes have been historically associated with the Big South Fork area.

Recreational opportunities abound for visitors to the Big South Fork National River and Recreation Area. In the spring, the river’s whitewater is ideal for rafting and kayaking. On the river’s nonwhitewater sections, canoeing and canoe camping are available year-round. Equestrians enjoy the more than 180 miles of horse trails within the park, and hikers can traverse close to 150 miles of hiking trails, including the Sheltowee Trace National Recreation Trail. Other activities include mountain biking, rock climbing, hunting, fishing, swimming, and wildlife viewing. Swimming can also be enjoyed at Bandy Creek Pool, one of the few public swimming pools operated by the National Park Service. Scenic overlooks throughout the park offer breathtaking views of the gorges and surrounding region.

Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Big South Fork National River and Recreation Area was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established when the enabling legislation adopted by Congress was signed into law on August 13, 1968 (see appendix A for enabling legislation). The purpose statement lays the foundation for understanding what is most important about the park.

The BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA was established to preserve the free-flowing condition of the Big South Fork of the Cumberland River and its tributaries, to enhance water quality, to provide diverse recreational opportunities, and to protect the unique scenic, natural, and cultural resources of the area, including the predominantly undeveloped and natural character of the gorge.



Park Significance

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

The following significance statements have been identified for Big South Fork National River and Recreation Area. (Please note that the sequence of the statements does not reflect the level of significance.)

1. Dramatic sandstone gorges, imposing bluff lines, some of the nation's largest water-crafted arches, rock shelters, and other notable geologic formations are found throughout Big South Fork National River and Recreation Area.
2. The Big South Fork, designated as Outstanding National Resource Water, is one of the largest remaining free-flowing rivers in the southeastern United States.
3. Big South Fork National River and Recreation Area protects diverse aquatic and terrestrial habitats that represent the original components of the Cumberland Plateau ecosystem and support regionally and globally rare flora and fauna.
4. The Big South Fork National River and Recreation Area contains numerous examples of human history in the Cumberland Plateau including thousands of rock shelters, settlements, farmsteads, mining sites, logging camps, and other resources representing the life and culture of the region.
5. Big South Fork National River and Recreation Area offers exceptional public access to a broad range of land- and water-based recreational opportunities, providing a sense of discovery and adventure in a spectacular and scenic river gorge setting.



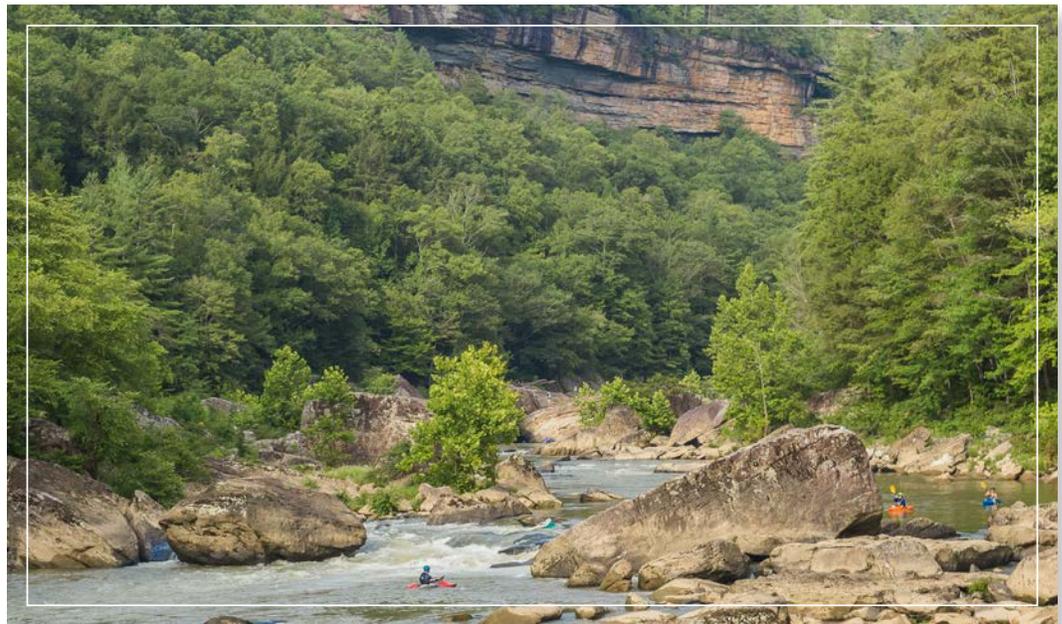
Fundamental Resources and Values

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

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

The following fundamental resources and values have been identified for Big South Fork National River and Recreation Area:

- **The Big South Fork River System.** The free-flowing Big South Fork of the Cumberland River and its tributaries pass through 90 miles of scenic gorges and valleys. Tennessee and Kentucky have designated their portions of the Big South Fork River as an Outstanding National Resource Water. Kentucky has also recognized the section of the Big South Fork from the state line to Blue Heron mine as a Kentucky Wild River.
- **Geologic Features.** The Big South Fork watershed lies within the Cumberland Plateau, which is in the southern portion of the Appalachian Plateaus structural province. The geology of the Big South Fork is characterized by parallel, horizontally bedded sedimentary Pennsylvanian and Mississippian age rock. The Pennsylvanian rocks are predominantly sandstone and shale, and include siltstone, conglomerate, and coal. The weathering processes on these rocks have produced an impressive array of formations, including arches, mesas, chimneys, cracks, and rock shelters.
- **Scenic Gorge.** The Big South Fork River flows north through a spectacular 600-foot-deep gorge where the land embraces the wildest and most rugged territory on the Cumberland Plateau. Breathtaking views of the area’s natural scenery, and night skies including sheer cliffs, rock formations, and waterfalls, can be enjoyed from the water or up above at the rim of the canyon.



- **Recreational Opportunities.** The Big South Fork National River and Recreation Area offers a diversity of outdoor recreational opportunities such as hiking (including the John Muir and Sheltopee National Recreational Trails), horseback riding, rafting and canoeing, rock climbing, camping, off-road vehicle riding, and hunting and fishing, among others. This diversity of activity also affords important tourism and related economic development opportunities for surrounding communities.
- **Cultural Resources and History.** The Big South Fork National River and Recreation Area has a long human history spanning the last 10,000 years. From the prehistoric Paleo Indians to the coal miners of recent time, Big South Fork National River and Recreation Area is an area with a rich cultural tapestry. This includes unique mining sites such as Blue Heron, archeological sites, historic sites such as Charit Creek, and other cultural resources depicting the area's rich human history.
- **Biodiversity.** A wide variety of natural conditions have combined to provide a high diversity of habitats within Big South Fork National River and Recreation Area that support numerous rare plant and animal species. Large mammals found in the area include white-tailed deer, black bear that were released experimentally in the mid-1990s, and elk that have migrated into the area from state-managed lands. Small mammals ranging from raccoon to bobcat and gray fox abound throughout the park. Some 160 species of birds, migratory and resident, have been recorded in Big South Fork in recent years. Finally, the Big South Fork River contains more than 60 species of fish including channel catfish, sunfish, muskellunge, and smallmouth bass. In addition, walleye, striped bass, and white bass do migrate upstream from Lake Cumberland. The river is also home to several important freshwater mussels.



Interpretive Themes

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

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

The following interpretive themes have been identified for Big South Fork National River and Recreation Area:

- **Rocks and River.** Powerful geologic forces of sedimentation, uplifting, and erosion created features in the gorge through which the river flows, influencing the plants and animals that live there.
- **Preserving Diversity.** Big South Fork National River and Recreation Area contains unique natural resources that help tell the story of the area, and must be protected and preserved.
- **Land has Shaped the People; People have Shaped the Land.** Big South Fork National River and Recreation Area has a rich cultural history spanning approximately 10,000 years. The land of the Big South Fork region has influenced human activity, but has also been affected by human presence and use.
- **Recreate to Educate.** Big South Fork National River and Recreation Area offers diverse environmentally sustainable outdoor recreation opportunities for a diversity of people. Recreation and education are motivations for conservation.



Part 2: Dynamic Components

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

Special Mandates and Administrative Commitments

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

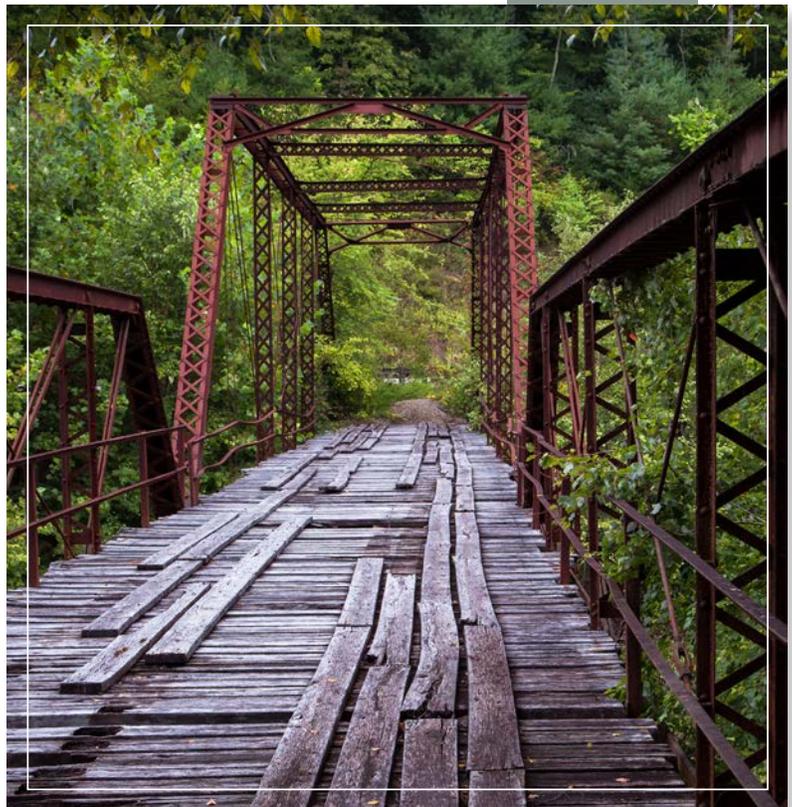
The following are special mandates and administrative commitments for Big South Fork National River and Recreation Area

- **16 USC 460ee (b) Acreage Limitation.** The Secretary may revise the boundaries from time to time, but the total acreage within such boundaries shall not exceed one hundred and twenty-five thousand acres.
- **16 USC 460ee (c)(4) Mineral Rights.** In any case where the Secretary determines that underlying minerals are removable consistent with the provisions of subsection (e)(3) of this section, the owner of the minerals underlying property acquired for the purposes of this section may retain such interest. The Secretary shall reserve the right to inspect and regulate the extraction of such minerals to insure that the values for which the park was created are not reduced and that the purposes of the park are not interfered with.
- **16 USC 460ee (d) Hunting, Fishing, and Trapping.** The Secretary shall permit hunting, fishing, and trapping on land and water under the Secretary's jurisdiction within the boundaries of the national area in accordance with applicable federal and state laws, except that the Secretary may designate zones where, and establish periods when, no hunting, fishing, or trapping shall be permitted for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment. Except in emergencies, any regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the appropriate state agency responsible for hunting, fishing, and trapping activities.

Decisions on hunting, fishing, and trapping are made by the National Park Service in consultation with the state and its agencies. Information regarding hunting, fishing, and trapping regulations beyond what can be found in 36CFR is found in the Big South Fork National River and Recreation Area Superintendent's Compendium.

- **16 USC 460ee (e)(2)(A) Gorge Areas Restrictions.** Within the gorge area, no extraction of, or prospecting for minerals, petroleum products, or gas shall be permitted. No timber shall be cut within the gorge area except for limited clearing necessary for establishment of day-use facilities, historical sites, primitive campgrounds, and access roads. No structures shall be constructed within the gorge area except for structures associated with the improvement of historical sites specified in the area adjacent to Rugby, Tennessee, Blue Heron Mine community, and Charit Creek Lodge and associated historic structures, except for day-use facilities and primitive campgrounds along the primary and secondary access routes specified herein and within 500 feet of such roads, and except for primitive campgrounds accessible only by water or on foot. No motorized transportation shall be allowed in the gorge area except on designated access routes, existing routes for administration of the National Area, existing routes for access to cemeteries; except that motorboat access into the gorge area shall be permitted up to a point one-tenth of a mile downstream from Devils' Jumps 3 and except for the continued operation and maintenance of the rail line currently operated and known as the K & T Railroad. The Secretary shall impose limitations on the use of existing routes for access to cemeteries. The Secretary shall acquire such interest in the K & T Railroad right-of-way by easement as he deems necessary to protect the scenic, esthetic, and recreational values of the gorge area and the adjacent areas.
- **16 USC 460ee (e)(2)(D) Roads in Gorge Area.** All other existing roads in the gorge area shall be maintained for nonmotorized traffic only, except that nothing in this section shall abrogate the right of ingress and egress of those who retain the right of use and occupancy.
- **16 USC 460ee (e)(3) Adjacent Gorge Areas Restrictions.** In adjacent areas: the removal of timber shall be permitted only where required for the development or maintenance of public use and for administrative sites and shall be accomplished with careful regard for scenic and environmental values; prospecting for minerals and the extraction of minerals from the adjacent areas shall be permitted only where the adit to any such mine can be located outside the boundary of the National Area; no surface mining or strip mining shall be permitted; prospecting and drilling for petroleum products and natural gas shall be permitted in the adjacent area under such regulations as the Secretary may prescribe to minimize detrimental environment impact, such regulations shall provide among other things for an area limitation for each such operation, zones where operations will not be permitted, and safeguards to prevent air and water pollution; no storage facilities for petroleum products or natural gas shall be located within the boundary of the National Area except as necessary and incidental to production; the Secretary is authorized to construct two lodges with recreational facilities within the adjacent areas so as to maximize and enhance public use and enjoyment of the National Area; construction of all roads and facilities in the adjacent areas shall be undertaken with careful regard for the maintenance of the scenic and esthetic values of the gorge area and the adjacent areas.
- **16 USC 460ee (e)(5) Area Adjacent to Rugby, Tennessee.** The Secretary shall consult and cooperate with the Tennessee Historical Commission and the Rugby Restoration Association and with other involved agencies and associations, both public and private, concerning the development and management of the national area in the area adjacent to Rugby, Tennessee. Development within the area adjacent to Rugby, Tennessee, shall be designed toward preserving and enhancing the historical integrity of the community and any historical sites within the boundary of the national area.

- **16 USC 460ee (e)(6) Blue Heron Mine Community.** The Secretary shall provide for the restoration of the Blue Heron Mine community in a manner that will preserve and enhance the historical integrity of the community and will contribute to the public's understanding and enjoyment of its historical value. To that end the Secretary may construct and improve structures within the community and may construct and improve a road into this community.
- **16 USC 460ee (e)(7) Rail or Alternative Mode of Transportation.** The Secretary shall study the desirability and feasibility of reestablishing rail transportation on the abandoned O&W railbed or an alternative mode of transportation within the national area upon the O&W roadbed, and shall report to Congress his recommendation with regard to development of this facility.
- **16 USC 460ee (e)(8) Improvement to Charit Creek Lodge and Historic Structures.** The Secretary may make improvements to the Charit Creek Lodge and associated facilities and to historic structures determined to be eligible for listing in the National Register of Historic Places. Such improvements shall be made in a manner consistent with the historic scene and the limited ability of the national area to accommodate additional use and development. Improvements to the Charit Creek Lodge and associated facilities shall be made within the approximately 30 acres of cleared land that existed on November 15, 1990, and within carrying capacity limitations determined by the National Park Service.
- **16 USC 460ee (g) Transportation Facilities.** The Secretary shall study transportation facilities in the region served by the National Area and shall establish transportation facilities to enhance public access to the National Area. In this connection the Secretary is authorized to acquire and maintain public roads, other than State highways, necessary to serve the public use facilities within the National Area, and to establish and maintain, at Federal cost an interior and circulating road system sufficient to meet the purposes of this section. Any existing public road, which at the time of its acquisition continues to be a necessary and essential part of the county highway system, may, upon mutual agreement between the Secretary and the owner of such road, be relocated outside of the National Area and if not so relocated such road shall be maintained at Federal expense and kept open at all times for general travel purposes. Nothing in this subsection shall abrogate the right of egress and ingress of those persons who may remain in occupancy under subsection (c) of this section. Nothing in this subsection shall preclude the adjustment, relocation, reconstruction, or abandonment of State highways situated in the National Area, with the concurrence of the agency having the custody of such highways upon entering into such arrangements as the Secretary or the Secretary of the Interior, after jurisdiction over the National Area has been transferred to him under subsection (b) of this section, deems appropriate and in the best interest of the general welfare.

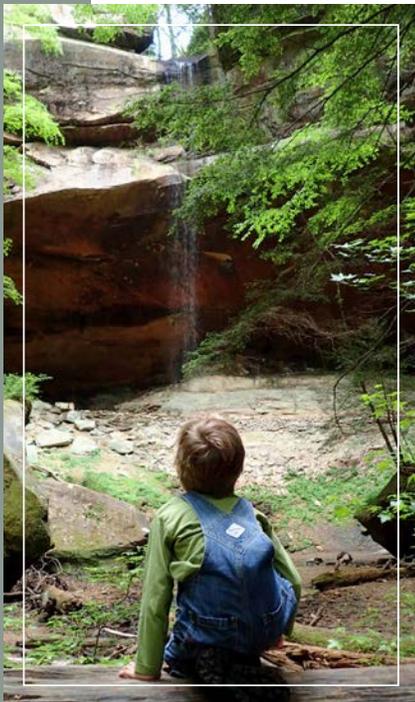


- **16 USC 460ee (h) Cooperate with Agencies in New River Water Shed.** The Park will cooperate with other agencies and the state to develop the New River plan and that plan (which was completed) included mining areas and recommendations for improving water quality. The Park will consult and cooperate with other departments and agencies of the federal government and states to develop measures and programs to protect and enhance the water quality within the National Area.
- **16 USC 460ee (i) Water Quality Protection.** The Secretary shall consult and cooperate with other departments and agencies of the United States and the States of Tennessee and Kentucky in the development of measures and programs to protect and enhance water quality within the National Area and to insure that such programs for the protection and enhancement of water quality do not diminish other values that are to be protected under this section.
- **Family Access to Cemeteries.** There are a total of 56 cemeteries located throughout Big South Fork National River and Recreation Area. Some of these are very old and no longer receive burials, while others are current cemeteries. Twenty-six of these cemeteries are private, family-owned cemeteries and many of these are actively used to this day for burials.

The remaining 32 cemeteries are federally owned. Many of these cemeteries have few or single stones. In many cases no owner or record for these cemeteries can be found.

Families are able to visit or access one of the cemeteries located in the gorge by vehicle (via closed road or behind a gated area) with Superintendent approval by filling out and submitting the required Cemetery Access Form. Access to cemetery sites along backcountry trails is allowed without a permit by foot or horseback depending on where the site is located.

- **McCreary County, Kentucky Water Utility District.** A large number of communities' drinking water comes from Lake Cumberland. The U.S. Army Corps of Engineers regulates withdrawal. It is a security issue, so the Department of Homeland Security has required this. The utility must consult with the park when conducting water tests.



- **Federally Designated Critical Habitat.** There are specific rules regarding the treatment of federally designated critical habitat. The following species have federally designated critical habitat within Big South Fork National River and Recreation Area:
 - Cumberlandian combshell
 - Cumberland elktoe
 - Fluted kidneyshell
 - Oyster mussel
- **Outstanding National Resource Waters.** Portions of the Big South Fork of the Cumberland River are classified in Tennessee and Kentucky as Outstanding Natural Resource Waters. Kentucky has also recognized the section of the Big South Fork from the state line to Blue Heron mine as a Kentucky Wild River.

Assessment of Planning and Data Needs

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

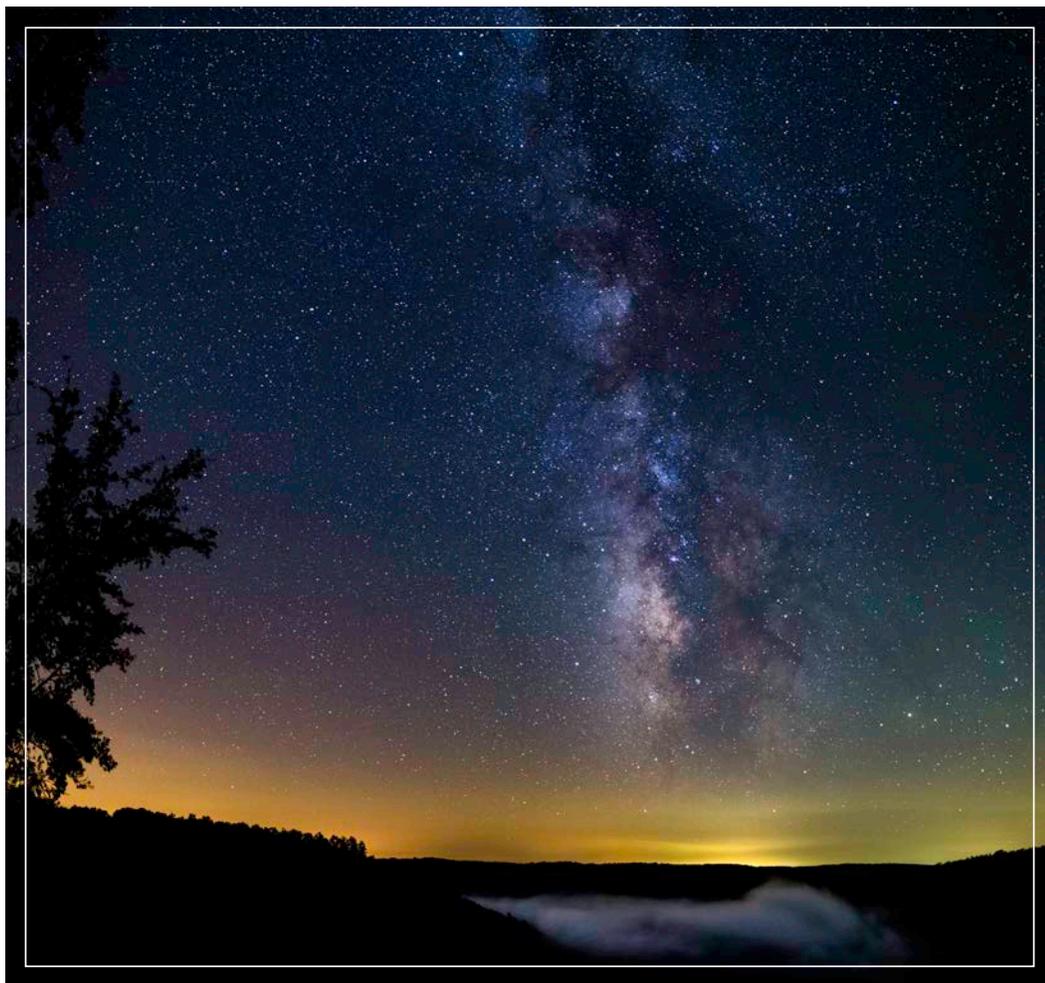
There are three sections in the assessment of planning and data needs:

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

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

Analysis of Fundamental Resources and Values

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



Fundamental Resource or Value	The Big South Fork River System
Related Significance Statements	Significance statements 1, 2, and 3.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • In Tennessee, all Big South Fork waters have been designated as Exceptional Tennessee Waters, meaning there can be no degradation unless no reasonable alternative to a proposed activity exists and the activity is in the public’s economic or social interest. • Roaring Paunch Creek and Rock Creek are Clean Water Act 303(d)-listed impaired by the Commonwealth of Kentucky. Pine Creek appears on the State of Tennessee’s Clean Water Act 303(d) impairment list. • Streams in the western portion of the park generally are cleaner and in better condition than in the eastern and southern portions of the park. The eastern and southern portions of the park are closer in proximity to coal-mining, forestry, and urban runoff. • The rivers in the park are susceptible to runoff from various upstream activities. Some pollution is impacting water quality, including isolated presence of <i>E.coli</i>. • The New River watershed remains a source of heavy sediment loading from past mining and logging activities. Overall, the New River watershed is among the most heavily mined in the cataloging unit, with the highest concentration of mines occurring in the subwatershed that includes the New River headwaters. A 2005 assessment counted more than 3,000 active and inactive coal mine sites within the watershed. • Aquatic resources in the park are jeopardized because of historical economic dependence of upstream regions on mineral extraction. The majority of coal mining in Tennessee occurs in the South Fork Cumberland watershed, most of which is in the New River drainage. • Water-born litter is present along the river. • The park supports a very diverse native fish community with more than 70 species according to NPSpecies. <p>Trends</p> <ul style="list-style-type: none"> • Water quality conditions have shown improvement over the last 20 years. • Species diversity is increasing with new species being discovered.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Trash and debris from up-river sources is a threat to overall water quality. • Anthropogenic impacts on water quality associated with coal mining, atmospheric deposition, lumber, livestock, recreational, and other human uses are present in the river area. • Gas and oil extraction can represent a threat to freshwater mussels via chloride contamination. • Urban and industrial growth poses a threat from wastewater contamination and diminishing water supply due to increasing demand. • Future upstream development of water resources for human use (such as construction of dams or increases in water withdrawals) could alter the flow-dependent resources of Big South Fork National River and Recreation Area. • Erosion and increased sedimentation associated with general trail use (horseback riding, biking, off-road vehicles, hiking) impacts water quality. • Climate change effects on flood regime. • The future ecological status of the park streams is uncertain because additional mining areas are still being proposed within the Big South Fork drainage.

Fundamental Resource or Value	The Big South Fork River System
Threats and Opportunities	<p>Opportunities</p> <ul style="list-style-type: none"> • Help communities to write grant proposals to obtain funding that will support water quality and remediation projects. • Provide opportunities to use the park as a classroom for education on the watershed and river. • Work with partners to improve water quality and regulatory processes. • Continue to work with local communities on abandoned mine cleanup. • Abandoned Mine Reclamation Program. • Work with volunteers for river cleanup and monitoring efforts. • Work with oil and gas operators to ensure compliance with 36 CFR part 9, subpart B regulations (nonfederal oil and gas rights within the boundaries of NPS units).
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> • U.S. Geological Survey stream flow gauges (long-term analysis). • GIS mapping of the river system. • LiDAR data.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Climate change vulnerability assessment. • Ecological flow study. • Completion of LiDAR for entire park. • Targeted water quality analysis.
Planning Needs	<ul style="list-style-type: none"> • None identified.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Clean Air Act • Clean Water Act • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 11988, "Floodplain Management" • Executive Order 12088, "Federal Compliance with Pollution Control Standards" • "Resource Protection, Public Use, and Recreation" (36 CFR 2) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (§4.6.1) "Protection of Surface Waters and Groundwaters" • NPS <i>Management Policies 2006</i> (§4.6.2) "Water Rights" • NPS <i>Management Policies 2006</i> (§4.6.4) "Floodplains" • NPS <i>Management Policies 2006</i> (§4.7) "Air Resource Management" • Director's Order 77-2: <i>Floodplain Management</i> • NPS <i>Natural Resource Management Reference Manual 77</i> • Special Directive 93-4 "Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance" (1993)

Fundamental Resource or Value	Geologic Features
Related Significance Statements	Significance statements 1, 2, and 4.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Erosion and weather can cause changes in geological features over time. • The park does not currently have a geologist on staff, but will probably be filling this position in the near future. • Fossils have been removed from some locations and placed in collections. • The park has plugged 56 oil wells to date and is working to close others. • Abandoned mine land reclamation is actively being pursued. • There are at least three known caves, but more probably exist. • Oil and gas operators are responsible for completing oil and gas operator plans. <p>Trends</p> <ul style="list-style-type: none"> • All of these features are relatively stable.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • The geologic features are impacted by fossil damage and theft, vandalism of rock features, and seismic testing or drilling. • Erosion is accelerated by high levels of human use, including visitor-created trails. • Not all oil and gas operators have submitted the required operation plans, which poses a threat to the compliance with applicable laws and policies. • Climate change may increase extreme storms events, flooding, and erosion of features. <p>Opportunities</p> <ul style="list-style-type: none"> • Pursue closing of other abandoned oil wells. • Work with oil and gas operators to ensure compliance with environmental regulations. • Enforce 36 CFR part 9, subpart B regulations (nonfederal oil and gas rights within the boundaries of NPS units). • Improve interpretation of geologic features and paleontological resources. • Improve recreational opportunities with particular attention to accessible options to experience these resources. • Pursue land acquisition of key geological features.
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> • Contaminated mine drainage environmental assessment and environmental impact statement (in progress). • Geology map (2016). • Oil and gas management plan. • Paleontological inventory. • Soils inventory.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Climbing use study. • Fossil recovery.
Planning Needs	<ul style="list-style-type: none"> • None identified.

Fundamental Resource or Value	Geologic Features
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Federal Cave Resources Protection Act • Paleontological Resources Preservation Act • "Resource Protection, Public Use, and Recreation" (36 CFR 2) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 3) "Land Protection" • NPS Management Policies 2006 (chapter 4) "Natural Resource Management" • NPS Management Policies 2006 (chapter 7) "Interpretation and Education" • NPS Management Policies 2006 (chapter 8) "Use of the Parks" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 12: <i>Conservation Planning, Environmental Impact Analysis, and Decision-making</i> • Director's Order 17: <i>National Park Service Tourism</i>



Fundamental Resource or Value	Scenic Gorge
Related Significance Statements	Significance statements 1, 2, and 5.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Condition is generally good with local exceptions (primarily natural scenery with little development). • Gorge access restrictions are being maintained. There are legislative restrictions on motorized vehicle use in the gorge. • Private land within the park is being developed and infringing on natural scenery. • Vistas at the park are often obscured by pollution-caused haze. Average natural visual range is reduced from about 115 miles (without the effects of pollution) to about 45 miles because of pollution at the park. <p>Trends</p> <ul style="list-style-type: none"> • Scenic resources within the gorge are slowly degrading in absence of proactive management of vegetation that is encroaching on these viewsheds. • Scenic vistas are stable and improving. Data from the regional visibility Interagency Monitoring of Protected Visual Environments monitoring sites indicate that during the last decade (2005–2014), the trend in visibility improved on both the 20% clearest days and 20% haziest days, resulting in an overall improving visibility trend. • Lack of maintenance of overlooks. • Forest pests and storms are killing trees. • Coal-fired power plants in the Ohio River Valley and Tennessee River Valley are believed to be major contributors to air quality impacts in the park and regionally. Significant regional emissions reductions are scheduled by 2018 for the protection of regional Class I areas, and should also improve air quality conditions at the park.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • At times haze resulting from air pollution threatens scenic views because it diminishes the natural visual range.. • Encroaching vegetation is covering/blocking/obstructing vista points and overlooks, less expansive views. • Nonnative and native pests and storms are killing trees, diminishing the quality of the natural vista. • Vandalism and litter. • Aging infrastructure at overlooks and vista points. • Derelict mining infrastructure detracts from natural scenery in isolated locations. • Inholdings and development are a threat to natural vistas. • Trampling from visitor use and related visitor-created trails, trail widening, and similar impacts. • Acid mine drainage associated with strip mining, which occurs from sulfuric acid and ferric hydroxide runoff at active and abandoned coal mining sites. Water quality impacts from acid mine drainage are particularly notable in Bear Creek, Roaring Paunch Creek, and New River. Impacts are also evident in the former mining community of Worley. • Low flying aircraft, unmanned aircraft. • Big South Fork National River and Recreation Area has existing legacy oil and gas operations on private mineral rights occurring within the park boundaries. New drilling technologies, including horizontal drilling and hydraulic fracturing, have significantly increased shale gas development throughout the eastern United States and the Appalachian Basin in the last 10 years. Extensive oil and gas operations can adversely affect air quality and alter scenic resources.

Fundamental Resource or Value	Scenic Gorge
<p>Threats and Opportunities</p>	<p>Opportunities</p> <ul style="list-style-type: none"> • Provide additional interpretation of the park’s excellent night skies and obtain designation as an international dark sky park. . • Active maintenance, trimming, volunteer cleanup, etc., of the scenic vista points and overlooks. • Engage communities to mitigate scenic impacts, especially with inholdings. • Engage schools and other groups to assist with vista clearing and related infrastructure improvement/maintenance efforts. • Continue to work with Tennessee Valley Authority and local distributors on rights-of-way clearing to ensure consistency with vista management. • Overlook cyclic maintenance.
<p>Existing Data and Plans Related to the FRV</p>	<ul style="list-style-type: none"> • General management plan – vista management. • Ongoing nearby air quality monitoring providing updated visibility conditions at the park. • Natural Resource Stewardship and Science reports: <ul style="list-style-type: none"> • Air resources • Night sky • Soundscapes
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Study and monitor night skies and soundscapes.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Visual resource management plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Clean Air Act • National Invasive Species Act • National Parks Air Tour Management Act • National Parks Overflight Act • Executive Order 11514, “Protection and Enhancement of Environmental Quality” • Executive Order 13112, “Invasive Species” • “Resource Protection, Public Use, and Recreation” (36 CFR 2) <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (§1.4) “Park Management” • NPS Management Policies 2006 (§1.6) “Cooperative Conservation Beyond Park Boundaries” • NPS Management Policies 2006 (§3.1) “General” • NPS Management Policies 2006 (§4.7) “Air Resource Management” • NPS Management Policies 2006 (§4.10) “Lightscape Management” • NPS Natural Resource Management Reference Manual 77 • NPS Guidelines for the Treatment of Cultural Landscapes

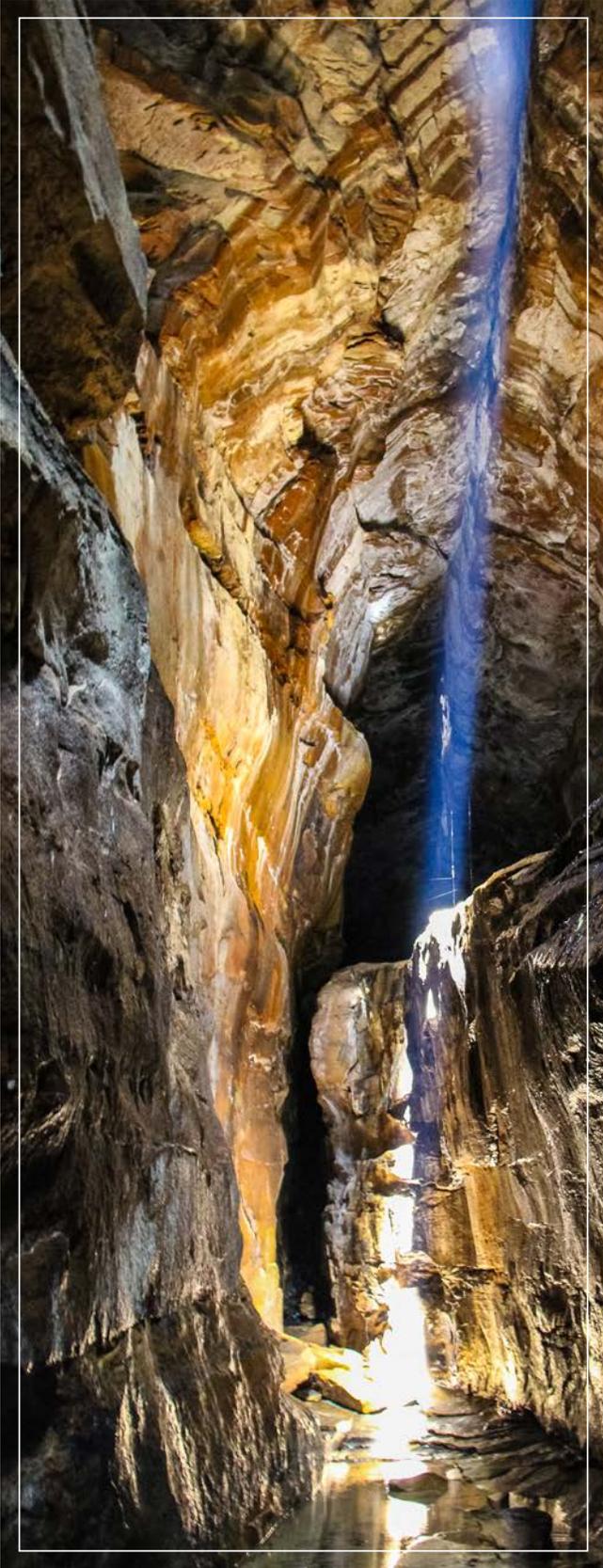




Fundamental Resource or Value	Recreational Opportunities
Related Significance Statements	Significance statements 4 and 5.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Recently there has been more park and public interaction due to new contact stations at Crossville, Rugby, and Oneida. • Actively working on improving infrastructure. • The park contains five developed campgrounds with two of these being highly developed sites, one primitive, and two equestrian campgrounds. Camping is also allowed along some of the back roads and in the backcountry reached by foot or horse. • Overall recreation opportunities are excellent. • Currently fall, summer, and spring are the most popular recreational use seasons. • Whitewater uses occur mostly in the spring and are most popular with visitors from outside the local area. • Fishing is seasonal and according to state regulations. There is a statewide fish consumption advisory for mercury in Kentucky. • Hunting along the rivers for deer and waterfowl is popular for local and regional hunters. • The park has achieved a reputation for being a premier horseback riding area and it is therefore popular with local and regional riders. • At present, there is no management plan in place for climbing at the park. • Nature study, such as photography, bird watching, and flower identification, is enjoyed by growing numbers of visitors and occurs in many different areas of the park. • The park is an economic driver in the local communities. In 2015 the nearly 650,000 visitors spent \$19.2 million in communities near the park, which supported 263 jobs in the local area.

Fundamental Resource or Value	Recreational Opportunities
<p>Current Conditions and Trends</p>	<p>Trends</p> <ul style="list-style-type: none"> • Increasing diversity of activity. • Rock climbing, including rappelling, is an increasing popular activity at the park. • Increased number of mountain bikers. • The "All 5" ride in the park has been designated an "Epic Ride" by the International Mountain Bicycling Association (IMBA). • Horseback riding is an important and popular activity. • Trail use seems to be increasing, especially with special events. • Day use is increasing, especially from locals in the area. • Online visitor contacts are on the rise via social media and website. • Less occurrence of emergency response related to recreational use due to improved education, infrastructure, and overall maintenance and management. • Recreational vehicle and backcountry camping are showing steady increases while tent camping is decreasing.
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Less interest in younger generations in exploring outdoor environments. • Weather related damage to trails. • Limited resources for recreation facility and use management. • Overuse and illegal use and related resource impacts. • Litter, trash, vandalism. • Stream crossings and river resource impacts. • Damage to archeological and cliff line sites that support endangered and other rare species from climbing activities. <p>Opportunities</p> <ul style="list-style-type: none"> • Pursue a Parks as Classrooms program to promote local educational opportunities for students. The park could be a laboratory. • Partnerships with outfitters and other outdoor companies for recreation programs. • The Youth Conservation Corps program brings youth to the park and includes a significant education component in addition to work experience, focus on trail work. • Engage park partners to increase or improve recreational offerings. • More business opportunities for facilitating recreation at the park. • Improve signing and marketing of area. • Completion of John Muir Trail / Sheltowee Trail extension through park (16 miles).
<p>Existing Data and Plans Related to the FRV</p>	<ul style="list-style-type: none"> • General management plan. • Standard operating principle for commercial services. • Trail condition study. • Ongoing nearby and regional air quality monitoring of deposition and ozone conditions.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Continued visitor use estimation and counting validation monitoring and studies. • Periodic economic impact studies. • Recreation use study (including impacts of visitor use on rivers and trails). • Climbing use study. • Study and monitor night skies and soundscapes. • River trail designation.

Fundamental Resource or Value	Recreational Opportunities
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Backcountry management plan. • Commercial services / business plan. • Visitor use management plan. • Climbing management plan. • Accessibility self-evaluation and transition plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Americans with Disabilities Act • Architectural Barriers Act • Clean Air Act • National Parks and Recreation Act • National Park Service Concessions Management Improvement Act • Outdoor Recreation Act • Rehabilitation Act • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 13352, "Facilitation of Cooperative Conservation" • "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities" (28 CFR 36) • "Resource Protection, Public Use, and Recreation" (36 CFR 2) • "Commercial and Private Operations" (36 CFR 5) • "Concessions Contracts" (36 CFR Part 51) • "Final Guidelines for Outdoor Developed Areas" (36 CFR 1191) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§4.7) "Air Resource Management" • NPS <i>Management Policies 2006</i> (chapter 7) "Interpretation and Education" • NPS <i>Management Policies 2006</i> (chapter 8) "Use of the Parks" • NPS <i>Management Policies 2006</i> (chapter 9) "Park Facilities" • NPS <i>Management Policies 2006</i> (chapter 10) "Commercial Visitor Services" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 17: <i>National Park Service Tourism</i> • Director's Order 32: <i>Cooperating Associations</i> • Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • Director's Order 48A: <i>Concession Management</i> • Director's Order 48B: <i>Commercial Use Authorizations</i> • NPS <i>Transportation Planning Guidebook</i>



Fundamental Resource or Value	Cultural Resources and History
Related Significance Statements	Significance statements 1 and 4.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Big South Fork National River and Recreation Area contains approximately 1,350 documented archeological sites, which may possibly represent only 40% of the estimated total for the park unit. • The park has 17 historic structures and many other associated features. • Most historic structures are generally in stable condition, but declining due to deterioration, weathering, etc. The park is evaluating and continuing to improve these structures. • The Oscar Blevins, Laura Blevins, Booger Blevins, and Jake Blevins structures need restoration work. • The park has documented historic home sites with structures that no longer exist. They are now archeological sites. • There are 56 known cemeteries and gravesites in the park. Many cemeteries are not regularly maintained, by families or the park, which has impacted their condition. • Surveys and studies, including those concerning natural resources, have produced a collection of more than 100,000 items that are currently being housed in several collections, including non-NPS facilities. The park has joined a multipark agreement to store curatorial objects in a storage facility for museum objects in Townsend, Tennessee. The park's current collection facility is in Tallahassee, Florida, and will be moved to Townsend in the near future. • The archeological record at the parks preserves 10,000 years of human occupation and preserves changes in subsistence practices. • Stone shelters at the park contain significant cultural and archeological resources. Remnants include flint chips, arrowheads, fragments of torches, and skeletal remains. Stone shelters hosted prehistoric big game hunting camps. • The Shawnee and Cherokee tribes have been historically associated with the Big South Fork area. <p>Trends</p> <ul style="list-style-type: none"> • The park has seen looting of archeological sites in the past, but data show that the situation has improved. Law enforcement staff conducts regular assessments of archeological sites, and their presence may be deterring some of this looting. The park has successfully prosecuted Archaeological Resources Protection Act violations.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Weathering, erosion, and vandalism are issues at historic and archeological sites. • Air pollution presents a threat to exposed historic resources as these can be altered or slowly dissolved from contact with acid rain (wet deposition) and sulfur dioxide gas from combustion. • Trees near historic and archeological sites can damage these areas. • Inappropriate visitor activities (i.e., camping, fires, etc.) within historic sites have caused impacts on foundations, remnant artifacts, and the structures themselves. • Pest species such as rodents, insects, bats, and carpenter bees can cause damage to structures. Groundhogs can impact the foundations. • Beavers have impounded water, which has caused flooding of historic sites. • Museum objects are deteriorating and need preservation and stabilization.

Fundamental Resource or Value	Cultural Resources and History
Threats and Opportunities	<p>Opportunities</p> <ul style="list-style-type: none"> • The park could pursue a Leave No Trace campaign to help visitors understand appropriate camping practices and to prevent damage to historic objects. • Expand interpretation of cultural resources, including opportunities for virtual interpretation of displays and exhibits. • All areas of the park are open for visitation, but access to home sites and cemeteries can be a challenge for individuals with accessibility needs. The park helps facilitate access sometimes, but this effort could be expanded. • Develop relationships with traditionally associated tribes for treatment of Native American Graves Protection and Repatriation Act items.
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> • Historic resource study (in progress).
Data and/or GIS Needs	<ul style="list-style-type: none"> • Archeological overview and assessment. • Completion of LiDAR for entire park. • National register nominations. • Oral histories. • Fossil recovery.
Planning Needs	<ul style="list-style-type: none"> • Cultural landscape reports for historic sites. • Exhibit plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • American Indian Religious Freedom Act • Antiquities Act • Archeological and Historic Preservation Act • Archaeological Resources Protection Act • Clean Air Act • Historic Sites Act • Museum Properties Management Act, as amended • National Cemeteries Act • National Historic Preservation Act, as amended • Native American Graves Protection and Repatriation Act • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "Indian Sacred Sites" • Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" • Executive Order 13287, "Preserve America" • "Resource Protection, Public Use, and Recreation" (36 CFR 2) • "National Cemetery Regulations" (36 CFR 12) • "National Register of Historic Places" (36 CFR 60) • "Curation of Federally Owned and Administered Archeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) • "Preservation of American Antiquities" (43 CFR 3) • "Archaeological Resources Protection" (43 CFR 7) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"

Fundamental Resource or Value	Cultural Resources and History
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management</i> • Director's Order 28A: <i>Archeology</i> • Director's Order 61: <i>National Cemetery Operations</i> • NPS Procedural Manual 77-2: <i>Floodplain Management</i> • NPS Reference Manual 61: <i>National Cemetery Operations</i> • Director's Order 77-2: <i>Floodplain Management</i> • NPS Museum Handbook, parts I, II, and III • <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i> • <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties</i>



Fundamental Resource or Value	Biodiversity
Related Significance Statements	Significance Statement 1,2 and 3.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Big South Fork National River and Recreation Area is a large park in a relatively sparsely populated area, consisting largely of forested habitat providing a safeguard against habitat loss, fragmentation, and degradation. However, because the area is subject to extractive uses, it is ranked a level-3 protection class (level 4 being the lowest protection). • Water quality and aquatic resources within the park are significantly affected by activities outside its boundaries. • Mining has had impacts on the park and on regional biodiversity, with lingering effects particularly on aquatic fauna. • The park has a large diversity of freshwater mussels and includes at least 11 species listed as threatened or endangered at the state or federal level. Some species have been lost due to the effects of past land use practices and impoundment. • Lake Cumberland is a permanent stressor on the park's mussel communities as it has caused changes in the fish assemblages upon which mussels depend and for which they have been specifically adapted. • The park supports a very diverse native fish community with between 70 and 83 species according to NPSpecies. • At least nine and possibly many more species of nonnative fish are present in Big South Fork National River and Recreation Area. Nonnative fish may have adverse impacts on native fish and other aquatic species through predation, competition, and in some cases, introgression. • The park provides breeding, wintering, and migration stopover habitat for a variety of birds including more than three dozen species of particular conservation concern. Historically, around 180 species have been reported from the park, though many of those are rare or transient. In 2013, the condition of bird assemblages at the park was ranked as good. • Five globally rare community types have been documented at the park, representing a disproportionate amount of biodiversity. • The rock shelter and cliff line plant communities are sensitive habitats that support biodiversity. • The rock outcrop communities are sensitive. • The communities at stream heads and seeps support a number of rare species including an orchid that is eligible for listing. • Cumberlandian cobble bar habitats, also known as river scour prairies, are an exceptional type of vegetation community that only exists in the Cumberland Plateau region of Kentucky and Tennessee. The condition of cobble bar habitats depends largely on the conditions of river flow, flooding, etc. • Vegetation at the park receives a current condition ranking of good due to the protection and monitoring of these communities. • Suppression of the natural fire cycle in the dry pine-dominated sites has resulted in changes in forest composition, though the park started prescribing fires in certain affected areas in 2005. With the disappearance of this habitat, fire-adapted plant and animal species have also become less frequent. • A southern pine beetle infestation altered the park's forests after 1999, causing the deaths of most of the park's yellow pines and some white pines. High fuel loading in the affected areas adds to the difficulty of prescribed burns. • A 2011 assessment documented a total of 86 nonnative taxa at the park, ranging from relict plantings at homesites to highly aggressive invasives capable of exerting a negative ecological impact.

Fundamental Resource or Value	Biodiversity
<p>Current Conditions and Trends</p>	<p>Conditions (continued)</p> <ul style="list-style-type: none"> • The condition of mammal assemblages at the park has been ranked as good. This assessment is based primarily on the observation that the mammal richness reported at the park is similar to that seen at other well-protected forest sites within the broad region, and upon the fact that a relatively large percentage of expected mammals have been reported from the park. The presence of a number of species of management concern was also considered an indication of good quality. • The condition of amphibians and reptiles assemblages is ranked as good as a high percentage of the expected species are found in the park, and species richness was similar to other well-protected sites on the nearby Cumberland Plateau when area was accounted for. <p>Trends</p> <ul style="list-style-type: none"> • The degradation of landscape quality adjacent to the park is of concern, and suggests that development in the vicinity of the park does and will continue to have an effect on the park. For that reason, landscape change at the park has been assigned a decreasing trend. • Human development and resource extraction have altered park habitats, although currently many of the deleterious conditions resulting from these activities are recovering and improving. • Due to less industrial activities in the watershed, runoff, erosion, and mean aquatic habitat conditions are improving, which support biodiversity. • Many polluted abandoned mine sites remain, negatively impacting water quality and biodiversity. • The park is pursuing active restoration of the mussel fauna. They are being reintroduced to the park, which has improved the biodiversity of mussel species. • While there is limited evidence of slight changes in abundance of or diversity, possibly driven by habitat changes resulting from pest outbreaks or management activities, the overall condition of the greater bird community within the park has remained stable.
<p>Threats and Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • Coal development is currently low, and natural gas is escalating rapidly. These practices, and water pollution generally, can affect water quality and impact biodiversity. • Industrial water demand (drawing from water shed and impoundment) can affect flow rates and species diversity. • The presence of invasive species can threaten both aquatic and terrestrial ecosystems. Invasive plants are one of the most significant risks to cobble bar communities, in part because the frequent scouring leaves behind the type of disturbed habitat favored by many nonnatives. • Forest pests and pathogens, such as emerald ash borer, hemlock woolly adelgid, and thousand cankers disease, threaten major tree species. The park is treating for these types of pests. • White-nose syndrome is a severe and emerging threat to hibernating bats throughout the eastern United States. The disease affects hibernating bats and may result in catastrophic declines of more than 75% in local hibernating populations. Of 11 species of bats reported from the park, 8 are hibernating species at risk from this disease. • Natural communities are at risk for harmful effects from air pollution due to acidification and nutrient enrichment from excess deposition of nitrogen and sulfur, impacts on ozone sensitive plants, and mercury contamination. • Changes associated with climate change will probably have an impact on the presence of forest pests and pathogens, and could also affect species composition. • Unmanaged visitor use can threaten sensitive areas through social trailing, inappropriate camping practices, certain recreational activities, etc. • External land uses can cause habitat fragmentation. Development of adjacent areas can further amplify issue with connectivity, particularly for larger species. • Poaching of ginseng and other commercial viable plants has been an issue.

Fundamental Resource or Value	Biodiversity
Threats and Opportunities	<p>Opportunities</p> <ul style="list-style-type: none"> • The Connect the Cumberlands program could improve land use practices that impact biodiversity. • The park could pursue the Parks as Classrooms program to promote local educational opportunities for students. The park could be a laboratory. • Work with the U.S. Geological Survey to develop a science plan to share with partners to promote science and research on the Cumberland Plateau. • A lands unsuitable for mining petition is underway with the Office of Surface Mining. • The park can work with the NPS Exotic Plant Management Team and the Fire Use Monitoring group to get assistance with strategies in the control of invasive plant species. • The park could work with external user groups to educate on biodiversity and how to protect it. In particular, if the park could reach horse camp operators it would increase the odds of reaching visitors on this issue. • Continue to integrate natural resource data sets with GIS mapping overlays. • Continue to encourage weed-free forage for stock within the park • The park must work with adjacent communities and governmental partners to manage adequate water flow, which affects water quality and biodiversity. • Develop a plan for cyclic monitoring to support biological assessment of stream crossings. This effort would tier from determination for Endangered Species Act section 7, which is currently in process, and would be incorporated into inventory and monitoring protocol for stream monitoring.
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> • Avian conservation implementation plan (2005). • Bat studies (in progress). • NPS Inventory & Monitoring program data (inventories, locations, trend data, etc.). • Ongoing nearby and regional air quality monitoring of deposition and ozone conditions. • Research reports on biodiversity.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Backcountry campsite inventory. • Completion of LiDAR for entire park. • Ongoing inventories of natural resources. • Climate change vulnerability assessment. • Ecological flow study. • Targeted water quality analysis.
Planning Needs	<ul style="list-style-type: none"> • Backcountry management plan. • Climbing management plan. • Collection management plan.

Fundamental Resource or Value	Biodiversity
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Clean Air Act • Clean Water Act • Endangered Species Act, as amended • Federal Noxious Weed Act, as amended • Lacey Act, as amended • National Invasive Species Act • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 13112, "Invasive Species" • Executive Order 13352, "Facilitation of Cooperative Conservation" • Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management" • Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance" • Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance" • "Resource Protection, Public Use, and Recreation" (36 CFR 2) • "Endangered and Threatened Wildlife and Plants" (50 CFR 17) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS Management Policies 2006 (§4.1) "General Management Concepts" • NPS Management Policies 2006 (§4.1.4) "Partnerships" • NPS Management Policies 2006 (§4.4.1) "General Principles for Managing Biological Resources" • NPS Management Policies 2006 (§4.7) "Air Resource Management" • NPS Management Policies 2006 (§4.7.2) "Weather and Climate" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 25: <i>Land Protection</i> • Director's Order 75A: <i>Civic Engagement and Public Involvement</i> • Director's Order 77-2: <i>Floodplain Management</i> • Director's Order 77-7: <i>Integrated Pest Management</i> • NPS-75 <i>Natural Resources Inventory and Monitoring and Guideline</i> • NPS <i>Natural Resource Management Reference Manual 77</i> • NPS <i>Procedural Manual 77-2: Floodplain Management</i>



Identification of Key Issues and Associated Planning and Data Needs

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

The following are key issues for Big South Fork National River and Recreation Area and the associated planning and data needs to address them:

- **Asset Management and Funding.** Much of the infrastructure at Big South Fork National River and Recreation Area was built around the same time, which means that this infrastructure is all aging at the same time, leading to a severe deferred maintenance backlog. To resolve this issue there is a need to prioritize access and facility operation and staffing.
- **Accessibility.** There are a number of visitor facilities within the park that are not accessible to those visitors with limited mobility. The park has submitted proposals to make improvements to specific areas of the park, but there is a larger need that remains unresolved on this issue.
 - *Related Planning and Data Needs:* Strategic accessibility plan (in progress), accessibility self-assessment and transition plan, visitor use management plan
- **Community Outreach and Economic Development.** Developing and maintaining high quality relationships with the community and stakeholders is a high priority for the park. The recent general management plan process helped to greatly improve these relationships, but this is an ongoing effort that is essential to the future of the park.
 - *Related Data Needs:* Continued visitor use estimation and counting validation monitoring and studies, periodic economic impact studies (targeting trend analysis)
- **Inholdings and Land Acquisition.** The inholdings and needed land acquisitions are a long-term issue at Big South Fork National River and Recreation Area. These land acquisitions are needed to protect the park from further development and resource extraction. Acquiring these lands would also help to address new 36 CFR Part 9, Subpart B regulations and continue to manage mineral extraction.
 - *Related Planning Needs:* Updated land protection plan (in progress)



Planning and Data Needs

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

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



Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
Recreational Opportunities, Key Issue	Accessibility self-evaluation and transition plan	H	A national-level effort to improve accessibility in parks. Big South Fork National River and Recreation Area is already working on a strategic plan to improve access in the short-term.
Recreational Opportunities, Biodiversity	Backcountry management plan	H	Long-term need pending further data and information gathering to prescribe recommendations for backcountry use, which would help the park manage use and protect habitats and biodiversity.
Recreational Opportunities, Biodiversity	Climbing management plan	M	Pending further study of all aspects of climbing use and its benefits and impacts at Big South Fork River and Recreation Area, a climbing management plan may be completed to inform management of this popular activity at the park.
Cultural Resources and History	Cultural landscape reports	M	Reports to provide recommendations for treatment of historic sites, specific sites to be identified in the future.
Biodiversity	Collection management plan	M	An update to the park's collections storage plan, including collecting and curating natural resource specimens.
Recreational Opportunities, Key Issue	Visitor use management plan	M	A visitor use management plan would provide direction for how to manage use throughout the park. This plan would define the kinds and amounts of use that should occur at key areas throughout the park.
Scenic Gorge	Visual resource management plan	M	Need to prioritize funding and cyclic maintenance for clearing overlooks to improve vistas.
Recreational Opportunities	Commercial services / business plan	L	Future need for updating current plan identifying opportunities for new or expanded commercial services in the park.
Cultural Resources and History	Exhibit plan	L	A plan for how to use and display the park's collections to the public. This will assist the park in meeting Secretary's display standards.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
Cultural Resources and History	Archeological overview and assessment	H	The park has collected field data on this topic and is need of completing the report.
Geologic Features, Recreational Opportunities	Climbing use study	H	A study of all aspects of climbing use in the park including type and frequency of use along with users' preferences and expectations. This study might also address the potential resource and experiential impacts associated with this use. This study would serve as the baseline for developing a climbing management plan.
The Big South Fork River System, Cultural Resources and History, Biodiversity	Completion of LiDAR for entire park	H	GIS specialist at the park is working with the State of Tennessee on this. Data are needed on the cliff line to help manage rare species and habitats, logging lines, historic development, etc., among other parkwide uses.
Cultural Resources and History	Oral histories	H	The park has recorded several hundred oral histories, but needs to take advantage of ones it does not have as soon as possible while people are still available to provide this information.
Recreational Opportunities	River trail designation	H	The park is seeking designation of the Big South Fork River as a national river trail.
Scenic Gorge, Recreational Opportunities	Study and monitor night skies and soundscapes	H	To obtain status as an international dark sky park.
Biodiversity	Backcountry campsite inventory	H	Study would determine how visitors are using the backcountry and whether visitor uses are impacting habitats.
Recreational Opportunities, Key Issue	Continued visitor use estimation and counting validation monitoring and studies	H	Parkwide vehicular and legally designated trail use counting to improve the level of accuracy in visitor use estimates. Due to the high number of remote access points there is a need to identify appropriate access points and install trail counters in key locations to capture the diversity of use across the park. More accurate visitor use counts would improve the park's ability to manage visitor use and compete for additional funding.
The Big South Fork River System, Biodiversity	Ecological flow study	M	Determine minimum in-stream flow requirements for health of ecosystem and key indicator species. This would provide information on how river levels change with different flows and the effects on water quality and aquatic species in the context of climate change. This study would be a cross between biodiversity and water quality / flow assessment.
Biodiversity	Ongoing inventories of natural resources	M	Would include nonvascular plant, fungi, invertebrate inventories. Such inventories can be used to inform restoration efforts and environmental compliance actions.
Recreational Opportunities	Recreation use study	M	River use, hunting and fishing, camping, horseback riding, mountain biking, all-terrain vehicles, etc. Quantify, map, satisfaction, etc.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
The Big South Fork River System, Biodiversity	Targeted water quality analysis	M	Long-term studies are regularly conducted, including storm event monitoring. These would include more short-term, targeted investigations based on specific issues and documented impacts from routine monitoring.
The Big South Fork River System, Biodiversity	Climate change vulnerability assessment	L	A full analysis of all potential impacts of climate change including frequency and intensity of flood regime.
Geologic Features, Cultural Resources and History	Fossil recovery	L	Several rare and high profile fossil specimens need to be collected, interpreted, and curated, including two high profile specimens of particular need of preservation.
Cultural Resources and History	National register nominations	L	Many sites are eligible and need to be nominated to the National Register of Historic Places.
Recreational Opportunities, Key Issue	Periodic economic impact studies	L	Would inform park economic impact analysis for the local region and related reports.



Part 3: Contributors

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Appendixes

Appendix A: Enabling Legislation for Big South Fork National River and Recreation Area

CHAPTER 1244—BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA

Sec.

- 1244.01. Establishment.
- 1244.02. Boundaries.
- 1244.03. Acquisition of property.
- 1244.04. Owner’s retention of right of use and occupancy.
- 1244.05. Administration.
- 1244.06. Hunting, fishing, and trapping.
- 1244.07. Development.
- 1244.08. Federal power and water resources projects.
- 1244.09. Transportation facilities.
- 1244.10. Water quality protection.
- 1244.11. Authorization of appropriations.

§ 1244.01. Establishment

The Secretary of the Army, in accordance with the national recreation area concept included in the interagency report prepared pursuant to section 218 of the Flood Control Act of 1968 (Public Law 90–483, 82 Stat. 749) by the Corps of Engineers, the Department of the Interior, and the Department of Agriculture, as modified by this section, established on the Big South Fork of the Cumberland River in Kentucky and Tennessee, and the Secretary shall maintain, the Big South Fork National River and Recreation Area (in this chapter referred to as the “national area”) for the purposes of—

- (1) conserving and interpreting an area containing unique cultural, historic, geologic, fish and wildlife, archaeologic, scenic, and recreational values;
- (2) preserving as a natural, free-flowing stream the Big South Fork of the Cumberland River, major portions of its Clear Fork and New River stems, and portions of their various tributaries for the benefit and enjoyment of present and future generations;
- (3) the preservation of the natural integrity of the scenic gorges and valleys; and
- (4) the development of the area’s potential for healthful outdoor recreation.

§ 1244.02. Boundaries

(a) IN GENERAL.—The boundaries of the national area shall be as generally depicted on the drawing prepared by the Corps of Engineers and entitled “Big South Fork National River and Recreation Area” identified as map number BSF–NRRA(1)(A) and dated October 1972, which shall be on file and available for public inspection in the office of the District Engineer, U.S. Army Engineer District, Nashville, Tennessee. The Secretary may revise the boundaries from time to time, but the total acreage within the boundaries shall not exceed 125,000 acres.

(b) GORGE AREA AND ADJACENT AREAS.—

(1) DIVISION OF AREA.—The area within the boundary of the national area shall be divided into the gorge area and adjacent areas.

(2) GORGE AREA.—The gorge area shall consist of all land and water of the Big South Fork, Clear Fork, and New York River that lie between the gorge or valley rim on either side and those portions of the main tributaries and streams in the watersheds of the Big South Fork, Clear Fork, and New River that lie within a gorge or valley rim on either side, except that no land or water north of Kentucky Highway Numbered 92 shall be included. Where the rim is not clearly defined by topography, the gorge boundary shall be established at an elevation adjoining the water or land as the Secretary considers necessary for public access to the land or water.

(b) RESIDENTIAL PURPOSES.—

(1) ELECTION OF TERM.—With the exception of property or any interest in property that the Secretary determines is necessary for purposes of administration, preservation, or public use, any owner of improved property used solely for noncommercial residential purposes on the date of its acquisition by the Secretary may retain the right of use and occupancy of the property for those purposes for a term, as the owner may elect, ending either on the death of the owner or the owner’s spouse, whichever occurs later, or not more than 25 years from the date of acquisition.

(2) PAYMENT TO OWNER.—The Secretary shall pay to the owner the fair market value of the property on the date of the acquisition, less the fair market value on that date of the term retained by the owner.

(3) TERMS AND CONDITIONS, TRANSFER OR ASSIGNMENT, AND TER-

MINATION OF RIGHT.—The right—

(A) shall be subject to such terms and conditions as the Secretary considers appropriate to ensure that the property is used in accordance with the purposes of this chapter;

(B) may be transferred or assigned; and

(C) may be terminated with respect to the entire property by the Secretary on the Secretary’s determination that the property or any portion of the property has ceased to be used for non-commercial residential purposes, and on tender to the holder of the right an amount equal to the fair market value, as of the date of the tender, of that portion of the right that remains unexpired on the date of termination.

(4) RIGHT OF INDIVIDUAL RESIDING ON IMPROVED PROPERTY.—Any individual residing on improved property subject to the right of acquisition by the Secretary, as a tenant or by the sufferance of the owner of the property, may be allowed to continue in the residence for the lifetime of the individual or the individual’s spouse, whichever occurs later, subject to the same restrictions as applicable to owners residing on the property and provided that any obligation or rental incurred as consideration for the tenancy shall accrue during the term to the United States to be used in the administration of this chapter.

(c) MINERAL RIGHTS.—In any case where the Secretary determines that underlying minerals are removable consistent with the provisions of section 1244.07(b)(2) of this title, the owner of the minerals-underlying property acquired for the purposes of this chapter may retain the interest. The Secretary shall reserve the right to inspect and regulate the extraction of the minerals to ensure that the values enumerated in section 1244.01 of this title are not reduced and that the purposes declared in section 1244.05(a) of this title are not interfered with.

§ 1244.05. Administration

(a) MANAGEMENT.—The national area shall be established and managed for the purposes of—

(1) preserving and interpreting the scenic, biological, archeological, and historical resources of the river gorge areas; and

(2) developing the natural recreational potential of the area for the

enjoyment of the public and for the benefit of the economy of the region.

(b) UTILIZATION OF STATUTORY AUTHORITY.—In the administration of the national area the Secretary may utilize such statutory authority available to the Secretary for the conservation and management of wildlife and natural resources as the Secretary considers appropriate to carry out the purposes of this chapter.

§ 1244.06. Hunting, fishing, and trapping

The Secretary shall permit hunting, fishing, and trapping on land and water under the Secretary's jurisdiction within the boundaries of the national area in accordance with applicable Federal and State laws, except that the Secretary may designate zones where, and establish periods when, no hunting, fishing, or trapping shall be permitted for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment. Except in emergencies, any regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the appropriate State agency responsible for hunting, fishing, and trapping activities.

§ 1244.07. Development

(a) GORGE AREA.—

(1) PROHIBITIONS AND LIMITATIONS.—

(A) EXTRACTION OF, OR PROSPECTING FOR, MINERALS, PETROLEUM PRODUCTS, OR GAS.—Within the gorge area, no extraction of, or prospecting for minerals, petroleum products, or gas shall be permitted.

(B) CUTTING OF TIMBER.—No timber shall be cut within the gorge area except for limited clearing necessary for establishment of day-use facilities, historical sites, primitive campgrounds, and access roads.

(C) CONSTRUCTION OF STRUCTURES.—No structures shall be constructed within the gorge area except for—

(i) structures associated with the improvement of historical sites specified in subsections (c) to (e);

(ii) day-use facilities and primitive campgrounds along the primary and secondary access routes specified in this subsection and within 500 feet of the roads; and

(iii) primitive campgrounds accessible only by water or on foot.

(D) **MOTORIZED TRANSPORTATION.**—No motorized transportation shall be allowed in the gorge area, except—

(i) on designated access routes and routes that existed on November 15, 1990, for administration of the National Area and for access to cemeteries;

(ii) that motorboat access into the gorge area shall be permitted up to a point .1 mile downstream from Devils' Jumps; and

(iii) for the continued operation and maintenance of the rail line currently operated and known as the K & T Railroad.

(E) **ACCESS TO CEMETERIES.**—The Secretary shall impose limitations on the use of routes that existed on November 15, 1990, for access to cemeteries.

(2) **PRIMARY ACCESS ROUTES.**—Primary access routes into the gorge area may be constructed or improved on the general route of the following designated roads:

(A) Tennessee Highway Numbered 52.

(B) FAS 2451 (Leatherwood Ford Road).

(C) The road into the Blue Heron Community.

(D) Kentucky Highway Numbered 92.

(3) **SECONDARY ACCESS ROADS.**—Secondary access roads in the gorge area may be constructed or improved on the following routes:

(A) The roads from Smith Town, Kentucky, to Worley, Kentucky.

(B) The road crossing the Clear Fork at Burnt Mill Bridge.

(C) The road from Goad, Tennessee, to Zenith, Tennessee.

(D) The road from Co-Operative, Kentucky, to Kentucky Highway Numbered 92.

(E) The road entering the gorge across from the mouth of Alum Creek in Kentucky.

(F) The road crossing the Clear Fork at Peters Bridge.

(G) The road entering the gorge across from the mouth of Sta-

tion Camp Creek.

(4) OTHER ROADS.—All other roads that existed on March 7, 1974, in the gorge area shall be maintained for nonmotorized traffic only, except that nothing in this chapter shall abrogate the right of ingress and egress of those who remain in occupancy under section 1244.04 of this title.

(5) PROTECTION OF VALUES.—

(A) ROAD IMPROVEMENT OR MAINTENANCE AND CONSTRUCTION OF ROADS OR FACILITIES.—Road improvement or maintenance and any construction of roads or facilities in the gorge area as permitted by this chapter shall be accomplished by the Secretary in a manner that will protect the declared values of this unique natural scenic resource.

(B) ACQUISITION OF INTEREST IN K & T RAILROAD RIGHT-OF-WAY.—The Secretary shall acquire such interest in the K & T Railroad right-of-way by easement as the Secretary considers necessary to protect the scenic, esthetic, and recreational values of the gorge area and the adjacent areas.

(b) ADJACENT AREAS.—

(1) REMOVAL OF TIMBER.—In adjacent areas, the removal of timber shall be permitted only where required for the development or maintenance of public use and for administrative sites and shall be accomplished with careful regard for scenic and environmental values.

(2) PROSPECTING FOR, AND EXTRACTION OF, MINERALS.—Prospecting for minerals and the extraction of minerals from the adjacent areas shall be permitted only where the adit to any such mine can be located outside the boundary of the national area.

(3) SURFACE OR STRIP MINING.—No surface mining or strip mining shall be permitted.

(4) PETROLEUM PRODUCTS AND NATURAL GAS.—Prospecting and drilling for petroleum products and natural gas shall be permitted in the adjacent area under such regulations as the Secretary may prescribe to minimize detrimental environment impact. The regulations shall provide among other things for an area limitation for each operation, zones where operations will not be permitted, and safeguards to

prevent air and water pollution. No storage facilities for petroleum products or natural gas shall be located within the boundary of the national area except as necessary and incidental to production.

(5) CONSTRUCTION OF LODGES.—The Secretary may construct 2 lodges with recreational facilities within the adjacent areas so as to maximize and enhance public use and enjoyment of the national area.

(6) CONSTRUCTION UNDERTAKEN WITH REGARD FOR VALUES.—Construction of all roads and facilities in the adjacent areas shall be undertaken with careful regard for the maintenance of the scenic and esthetic values of the gorge area and the adjacent areas.

(c) AREA ADJACENT TO RUGBY, TENNESSEE.—The Secretary shall consult and cooperate with the Tennessee Historical Commission and the Rugby Restoration Association and with other involved agencies and associations, both public and private, concerning the development and management of the national area in the area adjacent to Rugby, Tennessee. Development within the area adjacent to Rugby, Tennessee, shall be designed toward preserving and enhancing the historical integrity of the community and any historical sites within the boundary of the national area.

(d) BLUE HERON MINE COMMUNITY.—The Secretary shall provide for the restoration of the Blue Heron Mine community in a manner that will preserve and enhance the historical integrity of the community and will contribute to the public's understanding and enjoyment of its historical value. To that end the Secretary may construct and improve structures within the community and may construct and improve a road into the community.

(e) IMPROVEMENT OF CHARIT CREEK LODGE AND HISTORIC STRUCTURES.—The Secretary may make improvements to the Charit Creek Lodge and associated facilities and to historic structures determined to be eligible for listing in the National Register of Historic Places. The improvements shall be made in a manner consistent with the historic scene and the limited ability of the national area to accommodate additional use and development. Improvements to the Charit Creek Lodge and associated facilities shall be made within the approximately 30 acres of cleared land that existed on November 15, 1990, and within carrying capacity limitations determined by the Service.

§ 1244.08. Federal power and water resources projects

The Federal Energy Regulatory Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act (16 U.S.C. 791a et seq.), within or directly affecting the national area and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which the national area was established. Nothing contained in this section shall preclude licensing of, or assistance to, developments below or above the national area or on any stream tributary to the national area that will not invade the national area or unreasonably diminish the scenic, recreation, and fish and wildlife values present in the area on March 7, 1974. No department or agency of the United States shall recommend authorization of any water resources project that would have a direct and adverse effect on the values for which the national area was established, or request appropriations to begin construction of any such project, without advising the Secretary in writing of its intention to do so at least 60 days in advance, and without specifically reporting to the Congress in writing at the time it makes its recommendations or request in what respect construction of the project would be in conflict with the purposes of this section and would affect the national area and the values to be protected under this chapter.

§ 1244.09. Transportation facilities

The Secretary shall study transportation facilities in the region served by the national area and shall establish transportation facilities to enhance public access to the national area. In this connection the Secretary may acquire and maintain public roads, other than State highways, necessary to serve the public use facilities within the national area, and to establish and maintain, at Federal cost, an interior and circulating road system sufficient to meet the purposes of this chapter. Any public road that existed on March 7, 1974 and which at the time of its acquisition continues to be a necessary and essential part of the county highway system may, on mutual agreement between the Secretary and the owner of the road, be relocated outside the national area. If not relocated the road shall be maintained at Federal ex-

pense and kept open at all times for general travel purposes. Nothing in this section shall abrogate the right of egress and ingress of those persons who may remain in occupancy under section 1244.04 of this title. Nothing in this section shall preclude the adjustment, relocation, reconstruction, or abandonment of State highways situated in the national area, with the concurrence of the agency having the custody of the highways on entering into such arrangements as the Secretary considers appropriate and in the best interest of the general welfare.

§ 1244.10. Water quality protection

The Secretary shall consult and cooperate with other departments and agencies of the United States and the States of Tennessee and Kentucky in the development of measures and programs to protect and enhance water quality within the national area and to ensure that the programs for the protection and enhancement of water quality do not diminish other values that are to be protected under this chapter.

§ 1244.11. Authorization of appropriations

There is authorized to be appropriated \$156,122,000 to carry out the provisions of this chapter.



Appendix B: Past and Ongoing Park Planning and Data Collection Efforts

Name	Type	Published
Data Management Plan: Appalachian Highlands Inventory and Monitoring Network.	Planning	2014
Long-term monitoring protocol for cobble bar communities: Big South Fork National River and Recreation Area (BISO) and Obed Wild and Scenic River (OBRI).	Planning	2013
Big South Fork National River and Recreation Area and Obed Wild and Scenic River Final Non-Federal Oil and Gas Management Plan/Environmental Impact Statement.	Planning	2012
Joint Curatorial Collections Facility Environmental Assessment.	Planning	2011
Environmental Assessment for Oil and Gas Well Plugging and Reclamation: Big South Fork National River and Recreation Area.	Planning	2010
Long-Range Interpretive Plan: Big South Fork National River and Recreation Area.	Planning	2009
Environmental Assessment: Plug and Reclaim Eleven Abandoned Wells at Big South Fork National River and Recreation Area. Restricted Access.	Planning	2007
Environmental Assessment and Vista Management Plan, Big South Fork Scenic Railway: Big South Fork National River and Recreation Area.	Planning	2007
Fields Management Plan for Big South Fork National River and Recreation Area. Restricted Access.	Planning	2006
Fields Management Plan for Big South Fork National River and Recreation Area. Restricted Access.	Planning	2006
Appalachian Highlands Inventory and Monitoring Network Vital Signs Monitoring Plan.	Planning	2005
Avian Conservation Implementation Plan.	Planning	2005
Big South Fork National River and Recreation Area Final General Management Plan and Environmental Impact Statement.	Planning	2005
Water Resources Management Plan, Big South Fork National River and Recreation Area. Restricted Access.	Planning	1997
Big South Fork National River & Recreation Area Strategic Plan, 1998–2002. Restricted Access.	Planning	1997
Big South Fork National River and Recreation Area Statement for Management/Basic Operations Statement. Restricted Access.	Planning	1993
Big South Fork National River and Recreation Area Archeological Resources Protection Plan for FY88 through FY92. Restricted Access.	Planning	1992
Draft Scope of Work: Master Plan for Development and Management of Big South Fork National River and Recreation Area.	Planning	1977

Name	Type	Published
Air		
Assessment of nitrogen deposition effects and empirical critical loads of nitrogen for ecoregions of the United States. Gen. Tech. Rep. NRS-80.	Data	2011
Ozone risk assessment for Appalachian Highlands Network. National Park Service. Fort Collins, Colorado.	Data	2004
Archeological Resources		
Archeological Investigations at BISO-265, BISO-211, and Two Proposed By-Pass Sections of the Twin Arches Road, Big South Fork National River and Recreation Area, Tennessee and Kentucky.	Data	1991
Big South Fork National River and Recreation Area Archeological Resource Survey Project Interim Report 1990: Phase I. Restricted Access.	Data	1991
The Summer Public Archeology Program at the Big South Fork National River and Recreation Area: Site Reports. Oneida, TN. Restricted Access.	Data	1990
Archeological Sites Monitoring Program at the Big South Fork National River and Recreation Area: Final Report, 1986 to 1989. Restricted Access.	Data	1989
Biota		
Cumberland Rosemary Monitoring 2001–2012, Big South Fork National River and Recreation Area and Obed Wild and Scenic River.	Data	2013
Natural resource condition assessment for Big South Fork National River and Recreation Area.	Data	2013
Rare Fish Monitoring at Big South Fork NRRRA and Obed Wild and Scenic River.	Data	2013
Analysis of Rare Fish Data.	Data	2012
Patterns of Ecological Performance and Aquatic Insect Diversity in High Quality Protected Area Networks.	Data	2012
Systematics of the <i>Etheostoma cinereum</i> (Teleostei: Percidae) species complex (subgenus <i>Allohistium</i>). <i>Zootaxa</i> , no. 3277 (2012): 43–55.	Data	2012
Fishtraps of the Big South Fork of the Cumberland River.	Data	2010
Mussels Protected from Horses at Big South Fork. <i>Park Science</i> , no. 2 (2009): 24.	Data	2009
A Survey of the Amphibians and Reptiles of the Big South Fork National River and Recreation Area.	Data	2008
Fish Survey of Big South Fork National River and Recreational Area.	Data	2007
Final Report of Bird Inventory: Big South Fork National River and Recreation Area, 2003–2005.	Data	2007
Mammal Inventory of Big South Fork National River and Recreation Area, Tennessee and Kentucky. Forrest City, AR.	Data	2007

Name	Type	Published
Biota (continued)		
Restoration of the Endangered Cumberland Elktoe (<i>Alasmidonta atropurpurea</i>) and Cumberland bean (<i>Villosa trabalis</i>) (Bivalvia: Unionidae) in the Big South Fork National River and Recreation Area, Tennessee and Kentucky. Blacksburg, VA.	Data	2005
A Survey of the Big South Fork Crayfish (<i>Cambarus bouchardi</i>).	Data	2002
Stage Set for Black Bear Restoration at Big South Fork. Park Science, no. 4 (1995): 24–26.	Data	1995
Observations on Seasonal Cycle, Population Patterns and Roost Selection in Summer Colonies of <i>Plecotus townsendii virginianus</i> in Kentucky. <i>American Midland Naturalist</i> , no. 1 (1994): 34–42.	Data	1994
<i>Thuja occidentalis</i> L. and Other Noteworthy Collections from the Big South Fork of the Cumberland River in McCreary County, Kentucky. <i>Castanea</i> , no. 3 (1980): 213–215.	Data	1980
On the Crayfishes Collected from the Big South Fork of the Cumberland River in Tennessee During the Summer of 1938. <i>American Midland Naturalist</i> , no. 3 (1942): 634–643.	Data	1942
Climate and Weather		
Recent Climate Change Exposure of Big South Fork National River and Recreation Area.	Data	2014
Big South Fork National River and Recreation Area annual climate summary for 2007.	Data	2010
Weather and Climate Inventory, National Park Service, Appalachian Highlands Network.	Data	2007
Cultural Landscapes		
Civil War Effects on the Home Front: Scott County and Nearby Areas of the Upper Cumberland Plateau.	Data	2011
NPS Cultural Landscapes Inventory 1998: Oscar Blevins Farmstead, Big South Fork National River and Recreation Area.	Data	1998
NPS Cultural Landscapes Inventory 1998: Lora Blevins Farmstead, Big South Fork National River and Recreation Area.	Data	1998
NPS Cultural Landscapes Inventory 1998: Charles Rudy Slaven/John Litton Farmstead, Big South Fork National River and Recreation Area.	Data	1998
NPS Cultural Landscapes Inventory 1998: Parch Corn Creek Farmstead, Big South Fork National River and Recreation Area.	Data	1998
A Survey of Folklife Along the Big South Fork of the Cumberland River. Restricted Access.	Data	1981

Name	Type	Published
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Geologic Resources		
Digital Geologic Map of Big South Fork National River and Recreation Area and Vicinity, Tennessee and Kentucky (NPS, GRD, GRI, BISO, BISO digital map) adapted from Kentucky Geological Survey DVGQ maps by Zhang and Stidham (2006), USGS GQ Maps by Smith (1978 and 1976) and Pomerene (1964), Tennessee Division of Geology Maps by Horton and Hoyal (2016), Horton (2015), Horton, Clendening and Hoyal (2013), Clendening and Horton (2012), Clendening et. al. (2011), Clendening and Horton (2010), Clendening and Jewell.	Data	2016
Soil Resource Inventory of the Big South Fork National River and Recreational Area, Kentucky and Tennessee.	Data	2011
Geologic Resources Inventory Scoping Summary, Big South Fork National River and Recreation Area & Obed Wild and Scenic River.	Data	2009
Paleontological Resource Inventory and Monitoring – Appalachian Highlands Network. Fort Collins, CO.	Data	2009
Hydrology		
Big South Fork National River and Recreation Area Baseline Water Quality Data Inventory and Analysis. Restricted Access.	Data	1994
Landscape Scale		
Evaluation of the sensitivity of inventory and monitoring national parks to acidification effects from atmospheric sulfur and nitrogen deposition: Appalachian Highlands Network (APHN).	Data	2011
Evaluation of the sensitivity of inventory and monitoring national parks to nutrient enrichment effects from atmospheric nitrogen deposition: Appalachian Highlands Network (APHN).	Data	2011
Ozone risk assessment for Appalachian Highlands Network. National Park Service. Fort Collins, Colorado.	Data	2004
Oil and Gas		
"Orphaned Oil and Gas Wells to be Plugged at Bit South Fork National River and Recreation Area." <i>Appalachian Highlands Science Journal</i> , no. 4 (2011): 4.	Data	2011
Wetland Delineation Report: Big South Fork National River and Recreational Area: Prepared in Support of a Project to Plug and Reclaim Oil and Gas Wells. Restricted Access.	Data	2009

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Oil and Gas		
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Simple Techniques for Assessing Impacts of Oil and Gas Operations on Federal Lands – a Field Evaluation at Big South Fork National River and Recreation Area.	Data	2000
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Big South Fork National River and Recreation Area Superintendent's Compendium of Designations, Closures, Permit Requirements and Other Restrictions Imposed Under Discretionary Authority.	Data	2014
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Restoration		
Big South Fork National River and Recreation Area Phase III Progress Report. Harrisburg, PA.	Data	1997
Revegetating Highly Acidic Mine Spoil on the Big South Fork National River. <i>Park Science</i> , no. 6 (1985): 20–21.	Data	1985
Transportation		
The Road Inventory of Big South Fork National River and Recreation Area. Restricted Access.	Data	2005
Field Report: Big South Fork National River and Recreation Area Alternative Transportation System Study. Restricted Access.	Data	2001
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Climbing use study	Data	Underway
Big South Fork NRRRA 2013 Visitor Survey Card Data Report.	Data	2013
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Southeast Region Foundation Document Recommendation Big South Fork National River and Recreation Area

September 2017

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

Niki Stephanie Nicholas

September 21 2017

RECOMMENDED

Niki Stephanie Nicholas, Superintendent, Big South Fork National River and Recreation Area

Date

Stan Austin

10/5/17

APPROVED

Stan Austin, Regional Director, Southeast Region

Date



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

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