



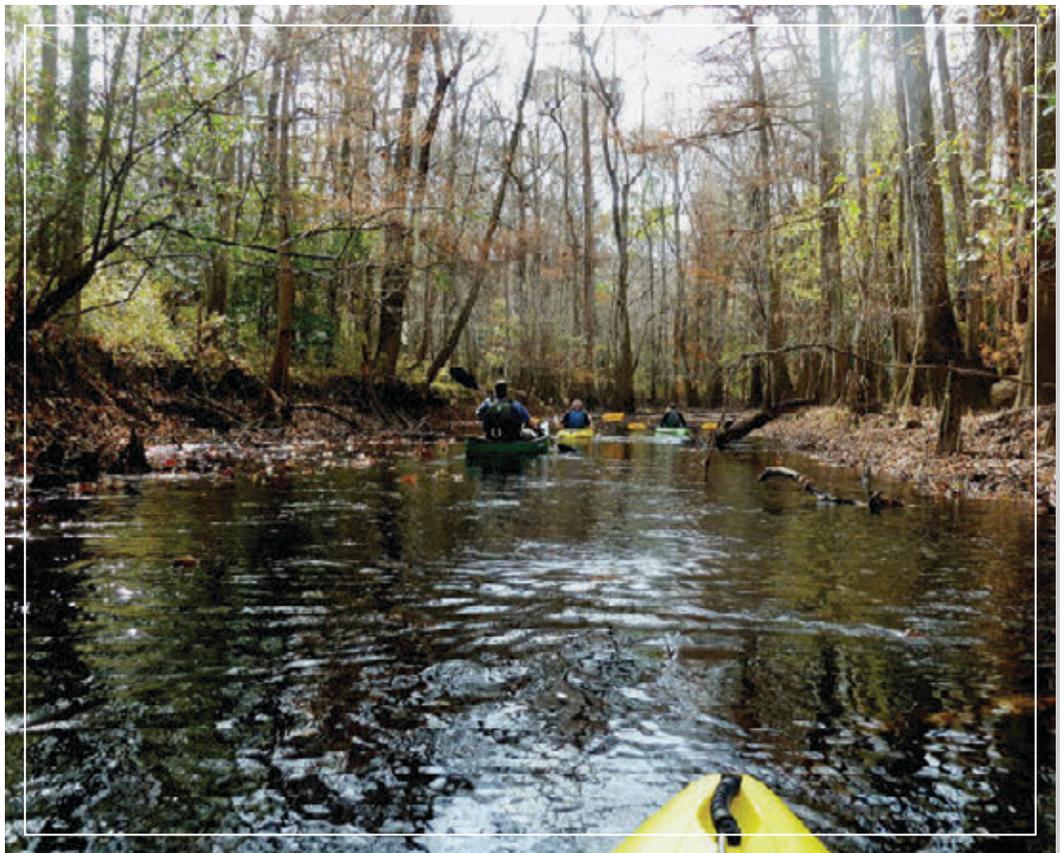
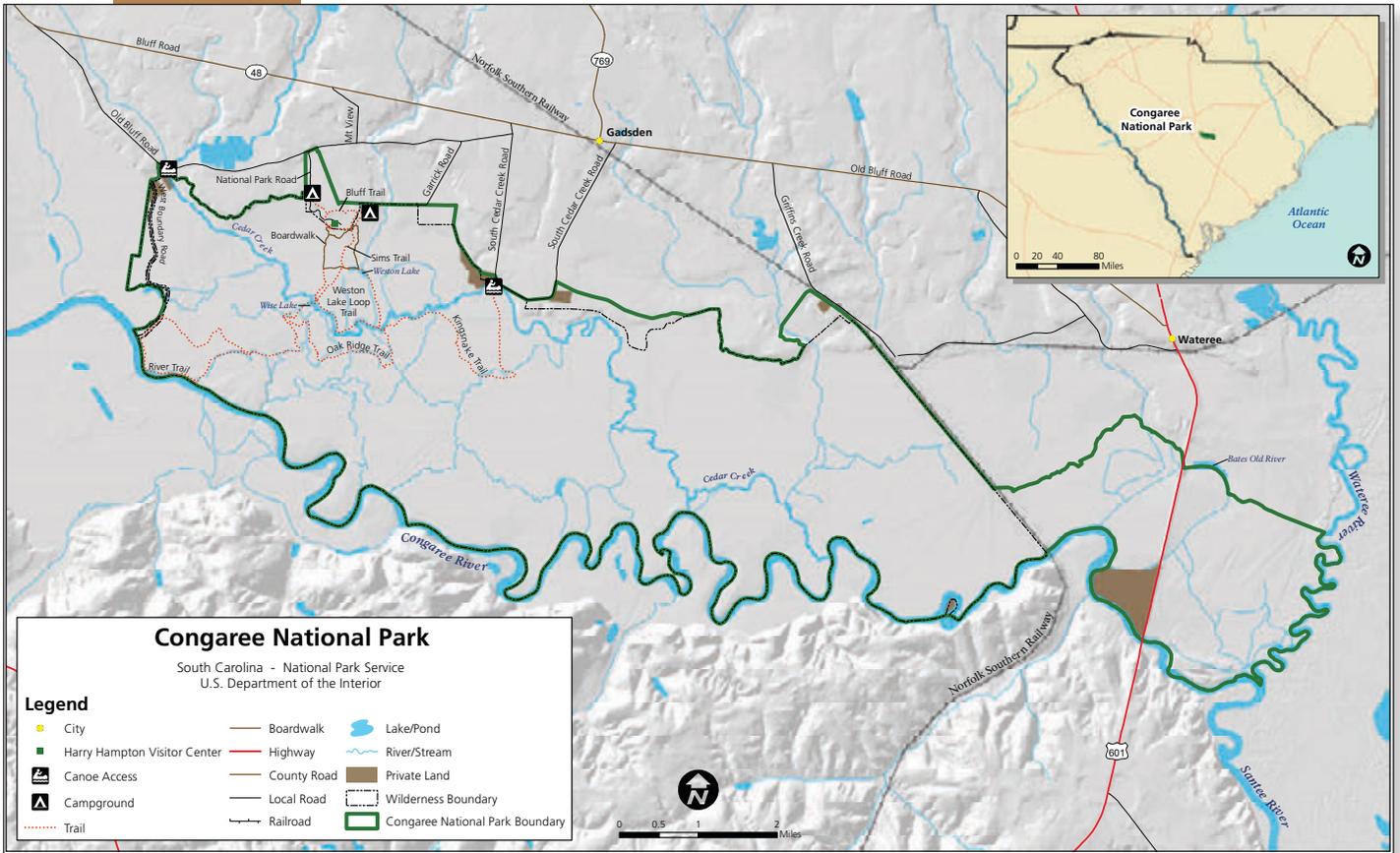
# Foundation Document

## Congaree National Park

South Carolina

October 2014





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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 401 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 in order 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, other important 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 Congaree National Park 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 and other important 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

Congaree National Park is located in the north shore floodplain of the Congaree River extending northwest from the confluence of the Congaree and Wateree rivers. The park administrative offices and primary visitor facilities lie approximately 20 miles southeast of Columbia, South Carolina, the state capital. Encompassing more than 26,000 acres of mostly floodplain forest, the park protects towering trees and diverse plant and animal life characteristic of the old-growth southern bottomland hardwood ecosystem.

Originally established in 1976 as Congaree Swamp National Monument, the park was created “to preserve and protect . . . an outstanding example of a near-virgin southern hardwood forest situated in the Congaree River floodplain in Richland County, South Carolina” (Public Law 94-545 [October 18, 1976]). Congress redesignated the monument Congaree National Park in 2003 (P.L. 108-108 [November 10, 2003]). Included within the park’s borders are 11,000 acres of old-growth forest, the largest contiguous tract of southern old-growth bottomland forest remaining in the United States.

The park is sustained by the rivers that bound it. Periodic floodwaters from the Congaree and Wateree rivers sweep through the bottomland forest, carrying nutrients and sediments that nourish and rejuvenate the rich floodplain ecosystem and its diverse assemblage of plants and animals. Twenty-two distinct plant associations have been classified in the floodplain portion of the park, with an additional five associations located on the low bluffs to the north. The location of wetland plant communities is dictated in large part by subtle topographic gradients in the floodplain, including elevation changes wrought by meandering river channels, lodging trees, and sedimentation from large drainages that stretch into North Carolina and drain a 14,000-square-mile watershed. Despite having an elevation change of only 20 feet in almost 15 miles, the floodplain has a surprisingly varied and complex topography, featuring flats, ridges, levees (natural and man-made), deep-water sloughs, oxbow lakes, and intermittent and permanent streams. The characteristic vegetation of individual communities is determined by soil texture and the duration of saturated soil conditions in the growing season. Due to the minimal relief in the floodplain, even slight elevation changes affect the duration and frequency of flooding, and thus the composition of plant communities.





The fertility of the floodplain, favorable growing conditions, and lack of logging allow trees to grow to very large size. The largest trees in the park have periodically been designated “champion” trees under the National Big Tree Program of the conservation group American Forests. Before Hurricane Hugo struck in September 1989, a total of 14 state and 7 national champion trees were recognized at the park. Hugo’s intense winds destroyed many of these champion trees and caused widespread, but variable, damage throughout the park. Subsequent wind events have felled other large trees, but the park still contains numerous champion trees and great potential for future champions. Champion trees in the park range from pine and oaks on more elevated sites to cypress and tupelo in sloughs and depressions.

The park’s diversity of flora and fauna, its champion trees and tall tree canopy, and a dynamic floodplain ecosystem have earned the park a number of important designations, including National Natural Landmark, Ramsar Convention Wetland of International Importance, International Biosphere Reserve, and Globally Important Bird Area. In 1988, Congress included the majority of the park in the National Wilderness Preservation System. Approximately 21,700 acres in the park are currently designated as wilderness. An additional 150 acres are designated potential wilderness, to be converted to wilderness when nonconforming uses cease. Cedar Creek is unique and unparalleled in the park, region, and nation. The South Carolina State Legislature has classified all waters within the park’s legislated boundary as Outstanding Resource Waters, and a section of Cedar Creek from Wise Lake to the Congaree River as the state’s first and only Outstanding National Resource Water.

Although largely a wilderness today, the park has a long history of human use and occupation. For thousands of years American Indians hunted, fished, and gathered plant materials in the rich floodplain environment. The Europeans and enslaved Africans who came after them ran livestock in the bottoms and grew crops on the higher floodplain ridges and natural levees. Slaves did the hard work on the park’s floodplain plantations, working fields and constructing earthen structures to protect cattle and crops from flooding. Remnants of former dikes and “cattle mounds” still survive today. Ten structures, most associated with agriculture in the floodplain, are listed in the National Register of Historic Places.

In addition to agriculture, parts of the park saw intermittent commercial logging from the days of first settlement. However, it was not until the 1880s and 1890s that the park was logged on a truly industrial scale. From 1899 to around 1914, the Santee River Cypress Lumber Company logged cypress and hardwoods over much of the park's current acreage. Santee focused primarily on the largest cypress trees, leaving much of the old-growth hardwood forest intact. For the next several decades, very little cutting took place in the park's core, a 15,000-acre area known as the "Beidler Tract." When logging resumed on the tract in 1969, local residents undertook the citizen action campaign that resulted in the establishment of the park. Since that time, the scars from past agriculture and logging have continued to fade in the Beidler Tract, allowing visitors to experience large expanses of old-growth bottomland forest.

More than 100,000 people visit the park each year to experience its remnant old-growth forest. Visitor activities include hiking, fishing, bird watching, canoeing, and camping. A 2.4-mile boardwalk loop winds through the floodplain, connecting to a network of hiking trails. The park has two walk-in campgrounds, and primitive camping is permitted throughout the backcountry. While most visitor use takes place on the elevated boardwalk and established trail network, paddling on Cedar Creek and the Congaree River is gaining popularity. In June 2007, the Congaree River from Columbia downstream to Bates Bridge Landing was dedicated as the Congaree River Blue Trail, and in 2008 this popular paddling route was designated a National Recreation Trail by the U.S. Department of the Interior.

The landscape surrounding the park is rural in character, with large areas devoted to agricultural, timber, and conservation uses. The park anchors the COWASEE Basin Focus Area, a voluntary conservation partnership made up of private landowners, land trusts, and government agencies including the South Carolina Department of Natural Resources. In recent years, a number of tracts on the Congaree River opposite the park have been placed in conservation easements. On its eastern end, the park connects to the Upper Santee Swamp Natural Area, a 16,700-acre special management area owned and managed by the South Carolina Public Service Authority (also known as Santee Cooper). Less than a mile upstream from the park, Richland County owns a 1,769-acre tract that it intends to use as a wetlands mitigation bank.

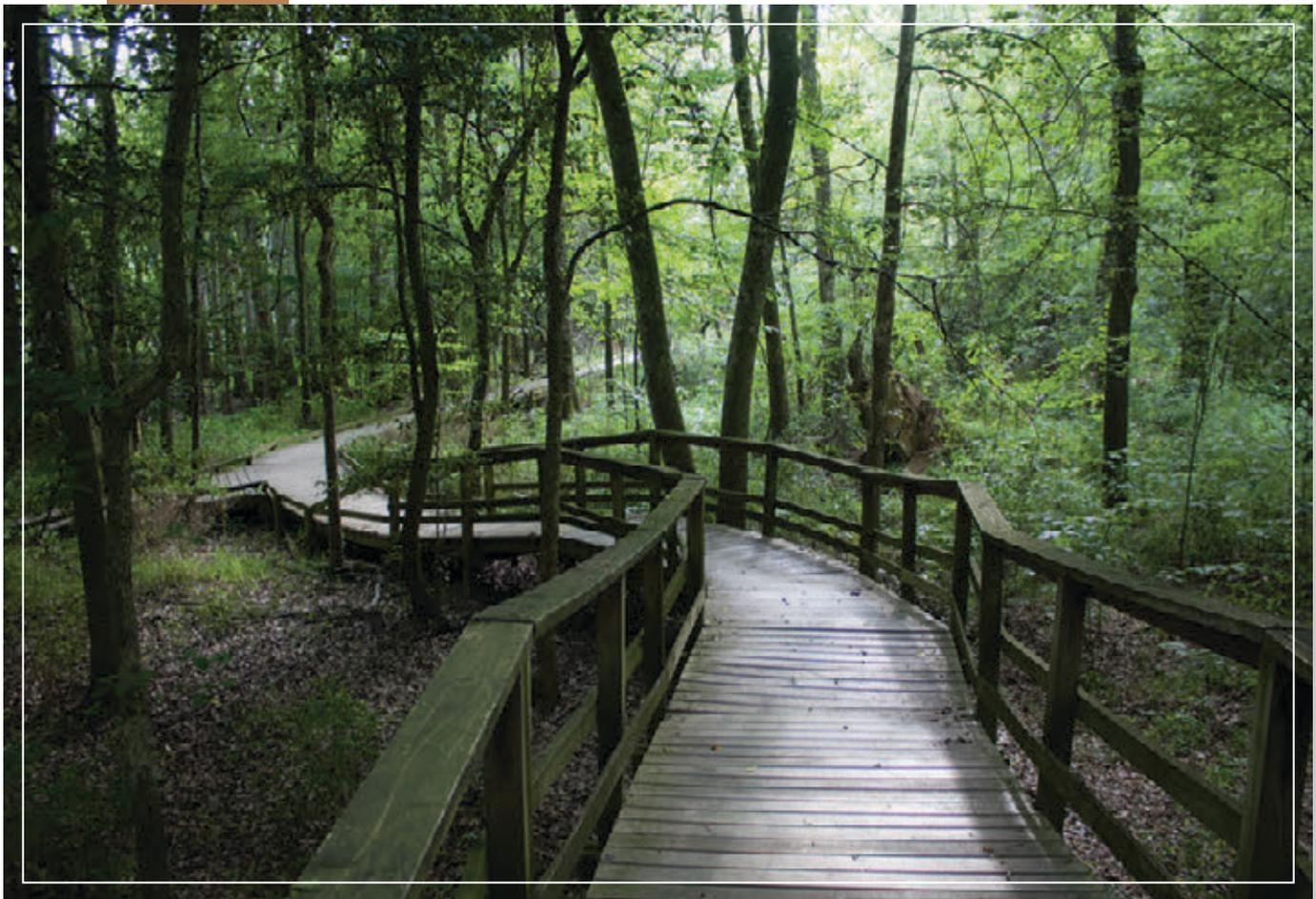


## Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Congaree National Park was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established when the enabling legislation adopted by Congress was signed into law on October 18, 1976 (see appendix A for enabling legislation and subsequent amendments, if applicable). The purpose statement lays the foundation for understanding what is most important about the park.

The purpose of Congaree National Park is as follows:

*CONGAREE NATIONAL PARK protects, studies, and interprets the resources, history, stories, and wilderness character of the nation's largest remaining tract of southern old-growth bottomland forest and its associated ecosystems.*



## 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 Congaree National Park, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

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

- Congaree National Park protects the nation's largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.
- Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.
- The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.



## 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 Congaree National Park:

- **Bottomland Hardwood Forest.** Congaree National Park contains a large tract of 11,000 contiguous acres of southern old-growth bottomland forest. Some areas lack any historical or ecological evidence of logging. Other areas where logging did occur have not been disturbed since at least 1914—and in many cases much earlier. The park’s old growth is augmented by thousands of acres of second-growth floodplain forest.
- **Big Trees.** Congaree National Park has a high concentration and diversity of big trees, including a number of state and national champions. The park contains one of the tallest deciduous forests in the eastern United States, second only to the deciduous stands in Great Smoky Mountains National Park. The park’s trees provide a source of data on age, size, and height maxima for various species.
- **Floodplain.** Congaree National Park protects a complex and diverse mosaic of floodplain geology and hydrology, including land forms, water bodies, and ecosystems. The park’s landscape features, topography, and soil types have been shaped by past migrations of the Congaree and Wateree rivers, historic climate change, the existence of geologic faults, the forest itself, and human activities. These elements in turn affect the distribution of plant and animal species in the park, as well as human interactions with the landscape.



- **Cedar Creek.** Cedar Creek is the principal hydrologic feature located within the Congaree National Park boundary. The State of South Carolina has designated the stretch of Cedar Creek below Wise Lake as an Outstanding National Resource Water, a rare designation assigned to water bodies having exceptional water quality and high ecological importance. Cedar Creek has been a part of the social and cultural life of neighboring people for generations.
- **Biodiversity.** The Congaree forest provides important terrestrial and aquatic habitat for many species of plants and animals, particularly those favoring old-growth bottomland forest. The park is particularly valuable as resting and breeding habitat for Neotropical migratory songbirds. Additionally, a number of federal- and state-listed plant and animal species of concern occur in the park.
- **Wilderness.** The Congaree National Park Wilderness encompasses large expanses of bottomland forest, as well as associated upland ecosystems, that are substantially natural, undeveloped, and untrammled. Other parts of the wilderness have been logged or lightly developed, but are returning to a primitive state through natural succession. People return to this wilderness frequently to experience opportunities for solitude and unconfined recreation. The Congaree National Park Wilderness serves a major metropolitan area, providing a wilderness experience to thousands of visitors per year.
- **Historic and Prehistoric Sites.** Congaree National Park protects a variety of archeological and historical resources spanning a time frame from pre-European contact to the present. Multiple park sites and features are listed in the National Register of Historic Places. These include two earthen embankments, a series of earthen bridge abutments, and six “cattle mounds.” Other sites potentially eligible for the National Register of Historic Places include the Bates Old River causeway and various historic road traces. Taken together, the park’s cultural features reflect the South’s bottomland subsistence heritage and related agricultural and commercial practices.



## Other Important Resources and Values

Congaree National Park contains other resources and values that are not fundamental to the purpose of the park and may be unrelated to its significance, but are important to consider in planning processes. These are referred to as “other important resources and values” (OIRV). These resources and values have been selected because they are important in the operation and management of the park and warrant special consideration in park planning.

The following other important resources and values have been identified for Congaree National Park:

- **Human Interaction with the Land.** The park protects sites important to people traditionally associated with the lower Congaree watershed. Among these are descendants of such groups as American Indians, enslaved Africans, free people of color, European settlers, planters/plantation owners, farmers, boatmen, ferrymen, railroad employees, and loggers. These traditionally associated people include families north and south of the river with longstanding ties to the floodplain, as well as people from farther away who hunted and camped in the floodplain for many years before it was a park. The park works to provide a diverse visiting public with access to and understanding of the lands, resources, and stories associated with these groups.

## 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 and other important 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. They go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. Themes help to 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 are taken from the draft long-range interpretive plan (June 2014) for Congaree National Park:

- Congaree National Park contains significant expanses of federally designated wilderness, which is relatively uncommon in the Eastern United States. As such, it provides diverse opportunities for recreation, solitude, reflection, challenge, discovery, and understanding.
- Congaree National Park inspires stewardship for current and future generations as they access, experience, and learn about the natural and cultural history of the park and surrounding community.
- Congaree National Park collects, preserves, and shares stories about human interactions and adaptations with the river, floodplain, and surrounding landscapes over thousands of years.
- Congaree National Park is internationally recognized as the largest remnant of old-growth bottomland forest in the eastern United States. The river, floodplain, and associated ecosystems support processes and provide habitat that benefit a large diversity of plant and animal species.
- The landscape, with its majestic trees, diversity of life, and geologic features embodies endurance, interrelationships, and change through time.

These themes are subject to change in the final plan.



## 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 and other important 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

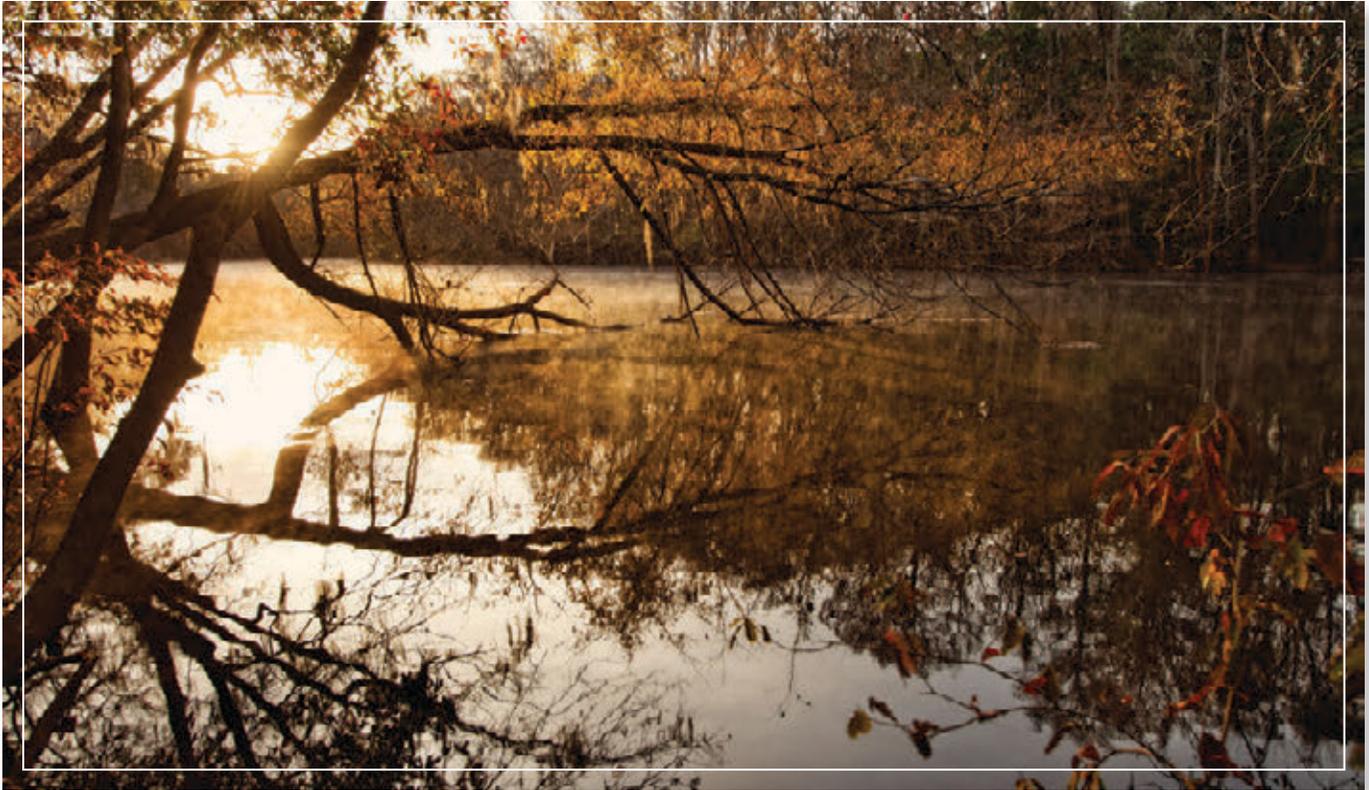
Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that 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 Congaree National Park.

#### Special Mandates

- The park must permit sport fishing on federal lands and waters within the park in accordance with applicable federal and state laws. However, the superintendent may designate zones where and establish periods when no fishing shall be permitted for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment. Any regulation limiting fishing may only be placed in effect after consultation with the South Carolina Department of Natural Resources (Public Law 94-545 [1976]).
- Approximately 21,700 acres of the park constitute designated wilderness. An additional 150 acres are potential wilderness. By law and policy, these lands must be managed to preserve their wilderness character (Public Law 100-524 [1988]; *NPS Management Policies 2006*, section 6.3.1).
- Establishment of the park shall not “negatively affect the economic development of the areas surrounding the park” (Public Law 108-199 [2004]).

#### Administrative Commitments

For more information about the existing administrative commitments for Congaree National Park, please see appendix B.



## 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 and other important 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 and other important 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 and other important 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	Bottomland Hardwood Forest
<p><b>Short Description of Importance</b></p>	<p>Congaree National Park contains a tract of 11,000 contiguous acres of Southern old-growth bottomland forest. Some areas lack any historical or ecological evidence of logging. Other areas where logging did occur have not been disturbed since at least 1914—and in many cases much earlier. The park’s old growth is buffered and augmented by thousands of acres of second-growth forest.</p>
<p><b>Related Significance Statements</b></p>	<ul style="list-style-type: none"> <li>• Congaree National Park protects the nation’s largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.</li> <li>• Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Generally good.</li> <li>• The park has worked to limit the spread of nonnative species.</li> <li>• Park staff has cleared debris from lands purchased from private owners.</li> <li>• Parts of the forest continue to be affected by past land use, especially logging and changes in upstream land use.</li> <li>• Water quality is being affected by external sources, including point and non-point source pollution from upstream development.</li> <li>• The forest appears to be flooding less than in former years. (How this change is related to normal variability, historical land use, recent upstream land use change, and climate change is not completely understood.)</li> <li>• Nonnative plants and animals infest some areas.</li> <li>• Annual projects result in limited control of nonnative plant species in select locations of the forest.</li> <li>• Feral hog rooting damages resources and facilitates spread of nonnative plant species.</li> <li>• Research on the bottomland forest conducted to date provides excellent context for continuing research. The Old Growth Bottomland Forest Research and Education Center is instrumental in facilitating new and continuing research with park partners.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Sections of the park logged in the past are regenerating.</li> <li>• The park continues to clear trash and debris from new lands as they are acquired.</li> <li>• A decrease in precipitation and/or a change in the watershed runoff response generate fewer floods than was typical in the late 19th and early- to mid-20th centuries. Former flooding regimes, however, may have been unnaturally exaggerated by poor 19th century land management and clearing upstream.</li> <li>• Feral hog population is stable or increasing based on data from the South Carolina Department of Natural Resources.</li> <li>• Research results around the state demonstrate that climate change is apparently affecting forest processes including upstream precipitation, vine growth, species ranges, tree life cycles, and frog life.</li> <li>• Research on both natural and cultural resources has increased over time.</li> <li>• The park has placed greater emphasis in recent years on communicating results of scientific research.</li> <li>• The park is increasing its focus on encouraging external funding for research.</li> </ul>

<b>Fundamental Resource or Value</b>	<b>Bottomland Hardwood Forest</b>
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Aging infrastructure in Columbia and surrounding area increases pollutant load of waters flowing into the park.</li> <li>• Excess sediment and nutrients in floodwaters affect ecosystem health and functioning.</li> <li>• Feral hog rooting in the park degrades habitat, affects plant regeneration, and contributes to spread of exotics.</li> <li>• Changes in infrastructure, such as along the U.S. Highway 601 causeway, affect hydrology and species movement in the park.</li> <li>• Invasive species are displacing native species in some locations.</li> <li>• Poaching of plants and animals continues to occur based on park-specific law enforcement case incident reports.</li> <li>• Visitor misuse of resources occurs in some areas based on park-specific law enforcement intelligence.</li> <li>• Encroachment into the park occurs in some areas where the boundary is not well marked.</li> <li>• Future pine beetle outbreaks are possible due to unthinned pine stands on northern bluff.</li> <li>• Future development in upriver and adjacent counties could degrade the quantity and quality of water entering the park and thereby affect ecosystem processes.</li> <li>• Degradation of air quality could affect forest health.</li> <li>• Nonnative pests and pathogens (e.g., emerald ash borer, laurel-wilt disease) could decimate populations of certain native species and have ripple effects in the forest ecosystem.</li> <li>• Climate change appears to be affecting lifecycles of native flora and fauna and functioning of certain forest processes.</li> <li>• Modeled climate change projections suggest a warmer climate future for the park. A warmer and drier landscape could have the following results, among others: (a) a decrease in water resources, both surface and groundwater, with corresponding impacts on aquatic environments; (b) increased frequency and intensity of wildland fire, with possible associated changes in ecological systems; and (c) an increase in invasive species.</li> <li>• Researchers who fail to abide by permit requirements (e.g., failing to remove flagging, temporary structures, or equipment or not following wilderness management requirements) pose potential threats to park resources.</li> <li>• The park soundscape continues to be negatively affected by overflights.</li> </ul>

Fundamental Resource or Value	Bottomland Hardwood Forest
<p><b>Threats and Opportunities</b></p>	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Educate the public and local governments about external threats to the park.</li> <li>• Use research, education, and interpretive programs to increase awareness of how actions inside and outside park boundaries affect park resources.</li> <li>• The bottomland forest serves as a laboratory to study ecological processes and the impacts of climate change over time.</li> <li>• Mark the park boundary to prevent encroachment and discourage illegal activities (e.g., hunting, trapping, and collecting).</li> <li>• Use backcountry patrols to discourage illegal activities.</li> <li>• Manage invasive plant species through the Southeast Coast Exotic Plant Management Team.</li> <li>• Conduct additional research to identify and assess ongoing and future threats to natural processes.</li> <li>• Manage feral hogs to reduce resource impacts.</li> <li>• Expand park activities that engage the community; promote partnerships that address threats and protect park resources.</li> <li>• Engage with the community to encourage sustainable watershed development.</li> <li>• Manage natural pest outbreaks as appropriate and work to prevent introduction and spread of nonnative pests and pathogens.</li> <li>• Use law enforcement encounters to encourage proper stewardship of bottomland forest.</li> <li>• Engage with NPS climate change response programs to help share concerns about climate change science, adaptation, mitigation, and communication with stakeholders and visitors.</li> <li>• Continue and expand benchmark research on a unique and relatively undisturbed forest ecosystem.</li> <li>• Increase collaboration between the park Interpretation and Education Division and the Old-Growth Bottomland Forest Research and Education Center to make research results accessible to a wider audience.</li> <li>• Develop and deliver curriculum-based education programs and multipark research projects.</li> <li>• Continue to engage the public in citizen science projects.</li> </ul>



Fundamental Resource or Value	Bottomland Hardwood Forest
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Boundary management data (park and wilderness): resurvey the park boundary where necessary; survey wilderness boundary where necessary (especially around development zones); create legal description of wilderness boundary; create GIS layer with park and boundaries to be used with other maps; identify areas for fire breaks on boundary.</li> <li>• Baseline data and modeling of current, local watershed conditions.</li> <li>• Geologic and hydrologic data on proposed developments in upstream watershed</li> <li>• Information on current and projected land use changes in Columbia and areas surrounding the park.</li> <li>• Vegetation map of lands added in 2003 boundary expansion.</li> <li>• Determine staffing needed to manage and maintain land acquired under 2003 boundary expansion.</li> <li>• Condition assessment of land adjoining water bodies (ox-bow lakes, guts, streams, Wateree and Congaree river channels), including impacts from feral hogs.</li> <li>• Data on forest health, species health, status of vegetation regeneration.</li> <li>• Comprehensive baseline data on invasive plant species including location (maps) and size and density of infestation.</li> <li>• Assessment of impacts on bottomland forest from changes in hydrology.</li> <li>• Assessment of air quality impacts on bottomland forest.</li> <li>• Assessment of pest /pathogen impacts on bottomland forest ecosystems.</li> <li>• Continued and expanded support of long-term water monitoring, including monitoring by the U.S. Geological Survey; expanded monitoring of waters entering and exiting the park; physical hydrology monitoring (Cedar Creek, Congaree, and Wateree rivers).</li> <li>• Continuous collection of climatological data (temperature, precipitation) to validate what climate future is becoming a reality and to better understand climate-related influences on the bottomland hardwood forest.</li> <li>• Downscaled climate modeling data.</li> <li>• Natural resource condition assessment.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Climate change scenario planning.</li> <li>• Fire management plan – wildland (in progress) and structural.</li> <li>• Integrated pest management plan.</li> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Trail management plan.</li> <li>• Visitor use management plan.</li> <li>• General management plan – new.</li> <li>• Water resources management plan update.</li> <li>• Build out analysis for Cedar Creek and Toms Creek drainages / stormwater management plan.</li> <li>• GIS data management plan.</li> <li>• Wayside plan.</li> <li>• Wilderness stewardship plan.</li> <li>• Wilderness study (to determine suitability of new lands for wilderness designation).</li> <li>• Wild pig management plan (in progress).</li> <li>• Law enforcement needs assessment / emergency medical services / search and rescue.</li> </ul>

Fundamental Resource or Value	Bottomland Hardwood Forest
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Air Act</li> <li>• Clean Water Act</li> <li>• Endangered Species Act</li> <li>• Migratory Bird Treaty Act</li> <li>• Federal Noxious Weed Act</li> <li>• Executive Order 11990, "Protection of Wetlands"</li> <li>• Executive Order 11988, "Floodplain Management"</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• Superintendent's Compendium</li> <li>• NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> <li>• 4.1.1 "Planning for Natural Resource Management"</li> <li>• 4.4.1 "General Principles for Managing Biological Resources"</li> <li>• 4.4.2 "Management of Native Plants and Animals"</li> <li>• 4.4.4 "Management of Exotic Species"</li> <li>• 4.4.5 "Pest Management"</li> <li>• 4.5 "Fire Management"</li> <li>• 4.6 "Water Resource Management"                             <ul style="list-style-type: none"> <li>• 4.6.1 "Protection of Surface Waters and Groundwaters"</li> <li>• 4.6.3 "Water Quality"</li> <li>• 4.6.4 "Floodplains"</li> <li>• 4.6.5 "Wetlands"</li> <li>• 4.6.6 "Watershed and Stream Processes"</li> </ul> </li> <li>• 4.7.2 "Weather and Climate"</li> <li>• 4.9 "Soundscape Management"</li> <li>• 4.10 "Lightscape Management"</li> <li>• Chapter 7 "Interpretation and Education"</li> <li>• Chapter 8 "Use of the Parks"</li> <li>• Chapter 9 "Park Facilities"</li> <li>• Chapter 10 "Commercial Visitor Services"</li> </ul> </li> <li>• NPS <i>Wildland Fire Management Reference Manual 18</i></li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director's Order 6: <i>Interpretation and Education</i></li> <li>• Director's Order 18: <i>Wildland Fire Management</i></li> <li>• Director's Order 77-1: <i>Wetland Protection</i></li> <li>• Director's Order 77-2: <i>Floodplain Management</i></li> </ul>



Fundamental Resource or Value	Big Trees
<p><b>Short Description of Importance</b></p>	<p>Congaree National Park has a high concentration of big trees, including a number of state and national champions. The park contains one of the tallest deciduous forests in the eastern United States, second only to the deciduous stands in Great Smoky Mountains National Park. The park’s trees provide a source of data on age, size, and height maxima for various floodplain and upland species.</p>
<p><b>Related Significance Statements</b></p>	<ul style="list-style-type: none"> <li>• Congaree National Park protects the nation’s largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.</li> <li>• Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Good.</li> <li>• In addition to the incremental loss of big trees from natural life expectancy, disease, or pest threats, large storm events often result in the loss of many big trees at once. Many large trees, including some champions, were felled by Hurricane Hugo (1989) and subsequent storms have resulted in similar loss.</li> <li>• Many large trees remain throughout the floodplain and uplands, particularly in the old-growth portion of the park and are relatively inaccessible to the public.</li> <li>• Condition of the park’s champion trees is uncertain. The last big tree survey was done in the 1990s. A resurvey is underway.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Old-growth portion of the floodplain contains trees in multiple age classes. Many older trees will grow large in coming decades; some may become champions.</li> <li>• The trend with respect to existing champion trees is uncertain. Some existing champions have fallen, but others may have taken their place since the last survey was completed in the mid-1990s.</li> </ul>

Fundamental Resource or Value	Big Trees
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Increased storm intensity in recent years may have felled a number of large trees.</li> <li>• Modeled climate change projections suggest a warmer climate future for the park. A warmer and drier landscape could have the following results, among others: (a) a decrease in water resources, both surface and groundwater, with corresponding impacts on big trees; (b) increased frequency and intensity of wildland fire, with possible associated changes in vegetative cover; and (c) an increase in invasive species.</li> <li>• Climate change is affecting precipitation patterns in the upper watershed. Increased minimum winter temperatures are complicating phenological responses at a landscape scale.</li> <li>• Climate change could produce more intense storms than occurred in the past, with corresponding loss of and damage to big trees.</li> <li>• Insects and pathogens pose a significant mortality threat to big trees, especially to older, less vigorous specimens.</li> <li>• Nonnative insects and pathogens, if introduced, could eliminate some tree species from the park.</li> <li>• Changes in hydrology driven by climate change and upstream land use could affect growing conditions for some tree species, with corresponding impacts on populations.</li> <li>• Feral hog rooting can destroy advance regeneration of many tree species.</li> <li>• Illegal activities, such as tree climbing with spikes, can harm big trees.</li> <li>• Floodplain species have shallow root systems; human visitation may weaken big trees in some instances by compacting soil around roots.</li> <li>• Increased vine growth resulting from climate change may stress trees.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Provide interpretive and education programs to educate the public on natural processes favoring growth of big trees.</li> <li>• Conduct research on big trees and potential threats to forest health.</li> <li>• Use integrated pest management and/or eradication techniques to control introduced nonnative plant and animal species.</li> <li>• Develop guidance about safeguarding big trees and enforce applicable regulations through law enforcement.</li> <li>• Consider offering limited managed opportunities for visitors to visit big trees in the wilderness.</li> <li>• Tree rings recoverable from downed champions contain an unparalleled record of climate and ecological change in the southeastern United States.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Big tree survey (complete ongoing study).</li> <li>• GIS data (update and manage).</li> <li>• Continuous collection of climatological data (temperature, precipitation) to validate what climate future is becoming a reality and to better understand climate-related influences on the park's big trees.</li> <li>• Data on threats to forest health from climate change.</li> <li>• Data regarding effects of invasive species and vines on big trees.</li> <li>• Data on impacts of people on big trees (trampling near sensitive roots, soil compaction, etc.).</li> </ul>

Fundamental Resource or Value	Big Trees
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Climate change scenario planning.</li> <li>• Fire management plan – wildland (in progress).</li> <li>• Integrated pest management plan.</li> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Trail management plan.</li> <li>• Visitor use management plan.</li> <li>• General management plan – new.</li> <li>• Water resources management plan – update.</li> <li>• Wayside plan.</li> <li>• Wilderness stewardship plan.</li> <li>• Wild pig management plan (in progress).</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Air Act</li> <li>• Clean Water Act</li> <li>• Federal Noxious Weed Act</li> <li>• Executive Order 11990, “Protection of Wetlands”</li> <li>• Executive Order 11988, “Floodplain Management”</li> <li>• Executive Order 13112, “Invasive Species”</li> <li>• Secretarial Order 3289 “Addressing the Impacts of Climate Change on America’s Water, Land, and other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• Superintendent’s Compendium</li> <li>• NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> <li>• 4.1.1 “Planning for Natural Resource Management”</li> <li>• 4.4.1 “General Principles for Managing Biological Resources”</li> <li>• 4.4.2 “Management of Native Plants and Animals”</li> <li>• 4.4.4 “Management of Exotic Species”</li> </ul> </li> <li>• 4.5 “Fire Management”</li> <li>• 4.6 “Water Resource Management” <ul style="list-style-type: none"> <li>• 4.6.1 “Protection of Surface Waters and Groundwaters”</li> <li>• 4.6.3 “Water Quality”</li> <li>• 4.6.4 “Floodplains”</li> <li>• 4.6.5 “Wetlands”</li> <li>• 4.6.6 “Watershed and Stream Processes”</li> <li>• 4.7.2 “Weather and Climate”</li> </ul> </li> <li>• NPS <i>Wildland Fire Management Reference Manual 18</i></li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director’s Order 18: <i>Wildland Fire Management</i></li> <li>• Director’s Order 77-1: <i>Wetland Protection</i></li> <li>• Director’s Order 77-2: <i>Floodplain Management</i></li> </ul>



Fundamental Resource or Value	Floodplain
<p><b>Short Description of Importance</b></p>	<p>Congaree National Park protects a complex and diverse mosaic of floodplain geology and hydrology, including land forms, water bodies, and ecosystems. The park’s landscape features, topography, and soil types have been shaped by past movement of the Congaree and Wateree rivers, historic climate change, the existence of geologic faults, the forest itself, and human activities. These elements in turn affect the distribution of plant and animal species in the park, as well as human interactions with the landscape.</p>
<p><b>Related Significance Statements</b></p>	<ul style="list-style-type: none"> <li>• Congaree National Park protects the nation’s largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.</li> <li>• Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Landforms and ecosystems are generally well-preserved and in good condition as compared to other similar systems in the region.</li> <li>• Water quality and flow are impacted by issues inside and outside the park boundary including the railroad and the U.S. Highway 601 causeway.</li> <li>• The Congaree River, which forms the southern boundary of the park, is impaired by <i>Escherichia coli</i> (<i>E. coli</i>) where the river enters the park and by mercury at U.S. Highway 601. The impaired state-designated beneficial uses are recreation and fish consumption. A total maximum daily load (TMDL) is targeted for the <i>E. coli</i> impairment in 2016; the mercury impairment in 2027.</li> <li>• All waters within the legislated park boundary are designated as Outstanding Resource Waters by the state of South Carolina, and the section of Cedar Creek from Wise Lake to the Congaree River is designated as the state’s first and only Outstanding National Resource Water.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Climate change is affecting precipitation patterns in the upper watershed. Increased minimum winter temperatures are complicating phenological responses, and hence evapotranspiration, in the floodplain at a landscape scale.</li> <li>• Changes in watershed land use and human water demand have degraded surface water quality and altered the flow regime of waters entering the park.</li> <li>• Demand for groundwater and changes in land use in the surrounding area have changed groundwater recharge, flow, quality, and availability.</li> </ul>

Fundamental Resource or Value	Floodplain
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Modeled climate change projections suggest a warmer climate future for the park. A warmer and drier landscape could have the following results, among others: (a) a decrease in water resources, both surface and groundwater, with corresponding impacts on aquatic environments; (b) increased frequency and intensity of wildland fire, with possible associated changes in vegetative cover; and (c) an increase in invasive species.</li> <li>• Climate change will continue to increasingly alter temperature, precipitation, phenology, species assemblages, and other processes in the floodplain.</li> <li>• Existing upstream impoundments have altered water flows into the park; new dams could alter water flows further.</li> <li>• Upstream sources of pollutants (chemical, physical, and biological) and in-park threats (including visitor waste and animal waste) continue to affect water quality.</li> <li>• Continued changes in watershed land use will affect the quantity and quality of surface and groundwater entering the park.</li> <li>• Continued off-stream water use (i.e., municipal, industrial, and agricultural water uses) may impact natural hydrologic regimes, groundwater availability, water quality, and in-stream habitat.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Interpret park hydrology and geology to visitors.</li> <li>• Engage the public and develop mutual education opportunities to address issues related to hydrology and water quality.</li> <li>• Continue participation in local policy, permitting, and relicensing matters that involve water quality and quantity (Congaree National Park participates in the Federal Energy Regulatory Commission relicensing process whenever waters flowing into the Congaree and Wateree watersheds are affected).</li> <li>• Continue to monitor park hydrology.</li> <li>• Engage in informed park planning and development.</li> <li>• Enforce laws and regulations as they pertain to water quality and supply.</li> <li>• Continue to conduct innovative research to improve understanding of hydrology, water quality, and geology in the park and potential threats to park resources.</li> <li>• Scientific study of landforms and floodplain sediments can yield vital information about the natural history of the southeastern United States.</li> <li>• Manage onsite waste treatment systems, pet waste, visitor waste, and feral hogs to reduce impacts on water quality.</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Baseline data and modeling of current, local watershed conditions.</li> <li>• Geologic and hydrologic data on proposed developments in upstream watersheds.</li> <li>• Information on current and projected land use changes in Columbia and areas surrounding the park.</li> <li>• Data from continued and expanded long-term water quality monitoring, including monitoring by the U.S. Geological Survey; expanded monitoring of waters entering and exiting the park; physical hydrology monitoring (Cedar Creek, Congaree, and Wateree rivers).</li> <li>• Condition assessment of land adjoining water bodies (ox-bow lakes, guts, streams, Wateree and Congaree River channels), including impacts from feral hogs.</li> <li>• Continuous collection of climatological data (temperature, precipitation) to validate what climate future is becoming a reality and to better understand climate-related influences on water resources and environments (e.g., floodplains).</li> <li>• Natural resource condition assessment.</li> </ul>

Fundamental Resource or Value	Floodplain
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Climate change scenario planning.</li> <li>• Fire management plan – wildland (in progress).</li> <li>• Integrated pest management plan.</li> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Trail management plan.</li> <li>• Upland forest management plan.</li> <li>• Visitor use management plan.</li> <li>• General management plan – new.</li> <li>• Water resources management plan – update.</li> <li>• Wayside plan.</li> <li>• Wilderness stewardship plan.</li> <li>• Wilderness study (to determine eligibility of new lands).</li> <li>• Wild pig management plan (in progress).</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Water Act</li> <li>• Executive Order 11990, “Protection of Wetlands”</li> <li>• Executive Order 11988, “Floodplain Management”</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• Superintendent’s Compendium</li> <li>• NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> <li>• 4.5 “Fire Management”</li> <li>• 4.6 “Water Resource Management”                             <ul style="list-style-type: none"> <li>• 4.6.1 “Protection of Surface Waters and Groundwaters”</li> <li>• 4.6.3 “Water Quality”</li> <li>• 4.6.4 “Floodplains”</li> <li>• 4.6.5 “Wetlands”</li> <li>• 4.6.6 “Watershed and Stream Processes”</li> </ul> </li> <li>• 4.7.2 “Weather and Climate”</li> <li>• 4.8.1 “Protection of Geologic Processes”</li> </ul> </li> <li>• NPS <i>Wildland Fire Management Reference Manual 18</i></li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director’s Order 18: <i>Wildland Fire Management</i></li> <li>• Director’s Order 77-1: <i>Wetland Protection</i></li> <li>• Director’s Order 77-2: <i>Floodplain Management</i></li> </ul>

Fundamental Resource or Value	Cedar Creek
Short Description of Importance	<p>Cedar Creek is the principal hydrologic feature located within the Congaree National Park boundary. The State of South Carolina has designated the stretch of Cedar Creek below Wise Lake as an Outstanding National Resource Water, a rare designation assigned to water bodies having exceptional water quality and high ecological importance. Cedar Creek has been a part of the social and cultural life of neighboring people for generations and is a popular visitor use area. The majority of the creek is located within the park’s designated wilderness boundary.</p>
Related Significance Statements	<ul style="list-style-type: none"> <li>• Congaree National Park protects the nation’s largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.</li> <li>• Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Good. The stretch of Cedar Creek below Wise Lake has been designated an Outstanding National Resource Water since 2006.</li> <li>• Cedar Creek is altered by periodic clearing of fallen trees and snags from the canoe trail for recreational use. This clearing has potential for positive impacts on recreation and public access and negative impacts on wilderness character and affected ecosystems.</li> <li>• Feral hog activity is having impacts on bank stability.</li> <li>• Cedar Creek is altered by an impoundment north of the Banister Bridge.</li> <li>• According to the state of South Carolina’s draft 2014 Clean Water Act Integrated Report, Cedar Creek, as it enters the park at S-40-734, is listed as impaired due to unsatisfactory macro invertebrate data. The impaired use is aquatic life. Further downstream (at the canoe access off S-40-1288 and at the Weston Lake Loop Trail at Bridge B) within the park, Cedar Creek is impaired by <i>E. coli</i>. The impaired use is recreation. Toms Creek, as it enters the park at Red Bluff Road, is listed as impaired for <i>E. coli</i> and pH. The impaired uses are recreation and aquatic life, respectively.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Development is increasing in the upstream watershed (Lower Richland County) and will probably expand significantly in the next decade. This has the potential to degrade water quality and disrupt normal flow regimes in Cedar Creek.</li> <li>• Increased stormwater runoff into Cedar Creek is already degrading water quality, stream geomorphology, and visitor experiences.</li> <li>• Agricultural development has increased runoff response and decreased relative groundwater recharge.</li> <li>• There are positive trends in the creation of effective floodplain fill policy, stream buffer policy, and land development policies by local governments.</li> </ul>

Fundamental Resource or Value	Cedar Creek
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Water drawdowns at Duffies Pond can result in rapid changes in water quantity and temperature in the creek; this may increase erosion and stress biological communities.</li> <li>• Aquaculture operations adjacent to the park boundary pose the threat of release of nonnative fish species and introduction of high levels of nutrients and waste.</li> <li>• Clearing of fallen trees from the canoe trail affects the amount and distribution of woody debris in the creek, with unknown impacts on biotic and abiotic stream processes.</li> <li>• Clearing also has potential adverse impacts on wilderness character.</li> <li>• Visitor use from canoeing and fishing can result in increased litter, bank erosion, and contamination from human and pet waste.</li> <li>• Unlawful use of internal combustion / electric boat motors in the lower reach of the creek can temporarily increase suspended sediments. Internal combustion motors can generate contaminants.</li> <li>• Land use change, failing on-site (septic) waste treatment systems, and development in the local watershed have the potential to degrade water quality and alter hydrology.</li> <li>• Fiscal limitations and budgeting prioritization have reduced the park's ability to continue water-quality and flow monitoring efforts.</li> <li>• Modeled climate change projections suggest a warmer climate future for the park. A warmer and drier landscape could result in a decrease in water resources, both surface and groundwater, with corresponding impacts on aquatic environments in the Cedar Creek system.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Improve the South Cedar Creek Road canoe landing. Improvements here would enable the park to eliminate use of Dawson's cabin site, allowing it to recover.</li> <li>• Increase education efforts about the historic uses of Cedar Creek.</li> <li>• Increase education efforts about the importance of maintaining wilderness character on the creek and on adjacent lands.</li> <li>• Work with Richland County decision makers, park stakeholders, and visitors for mutual education about threats to water quality, the threat of hydrologic alteration, and the role of Cedar Creek in the floodplain.</li> <li>• Develop research, and participate in planning efforts related to smart growth in Lower Richland County.</li> <li>• Work with canoe/kayak outfitters to improve the visitor experience at Cedar Creek.</li> <li>• Continue to monitor water quality in the creek.</li> <li>• Work with the state of South Carolina to ensure amelioration of water quality in Cedar Creek through application of the Outstanding National Resource Water anti-degradation provision and the timely development of TMDL limits.</li> <li>• Take advantage of law enforcement contacts with visitors to guide appropriate use of Cedar Creek and enforce regulations.</li> </ul>

<b>Fundamental Resource or Value</b>	<b>Cedar Creek</b>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• Analysis of impacts of trail clearing on Cedar Creek (removal of natural material and depositing cut material in stream channel).</li> <li>• Condition assessment of land adjoining water bodies (ox-bow lakes, guts, streams, Wateree and Congaree River channels), including impacts from feral hogs.</li> <li>• Data from continued and expanded long-term water quality monitoring, including monitoring by the U.S. Geological Survey; expanded monitoring of waters entering and exiting the park; physical hydrology monitoring (Cedar Creek).</li> <li>• Build out analysis for Cedar Creek and Toms Creek watersheds to inform growth and development decisions in Lower Richland County.</li> <li>• Visitation use data for Cedar Creek (trips led by the National Park Service and authorized outfitters).</li> <li>• Continuous collection of climatological data (temperature, precipitation) to validate what climate future is becoming a reality and to better understand climate-related influences on Cedar Creek.</li> <li>• Natural resource condition assessment.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Climate change scenario planning.</li> <li>• Fire management plan – wildland (in progress).</li> <li>• Fisheries management plan.</li> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Trail management plan.</li> <li>• Upland forest management plan.</li> <li>• Visitor use management plan.</li> <li>• General management plan – new.</li> <li>• Water resources management plan (update) including management prescriptions that will resolve stormwater issues that threaten Cedar Creek.</li> <li>• Wayside plan.</li> <li>• Wilderness stewardship plan.</li> <li>• Wild pig management plan (in progress).</li> <li>• Build out analysis for Cedar Creek and Toms Creek drainages / storm water management plan.</li> <li>• Law enforcement needs assessment / emergency medical services / search and rescue.</li> </ul>

Fundamental Resource or Value	Cedar Creek
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Air Act</li> <li>• Clean Water Act</li> <li>• National Historic Preservation Act, as amended (16 USC 470)</li> <li>• Americans with Disabilities Act</li> <li>• NPS Concessions Management Improvement Act</li> <li>• Executive Order 11988, "Floodplain Management"</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> <li>• South Carolina Regulation R.61-69, Classified Waters</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• Superintendent's Compendium</li> <li>• NPS Management Policies 2006               <ul style="list-style-type: none"> <li>• 4.5 "Fire Management"</li> <li>• 4.6 "Water Resource Management"                   <ul style="list-style-type: none"> <li>• 4.6.1 "Protection of Surface Waters and Groundwaters"</li> <li>• 4.6.3 "Water Quality"</li> <li>• 4.6.4 "Floodplains"</li> <li>• 4.6.6 "Watershed and Stream Processes"</li> </ul> </li> <li>• 4.7.2 "Weather and Climate"</li> <li>• 5.3.5.2 "Cultural Landscapes"</li> </ul> </li> <li>• Chapter 7 "Interpretation and Education"</li> <li>• Chapter 8 "Use of the Parks"</li> <li>• Chapter 9 "Park Facilities"</li> <li>• Chapter 10 "Commercial Visitor Services"</li> <li>• NPS Wildland Fire Management Reference Manual 18</li> <li>• NPS Natural Resource Management Reference Manual 77</li> <li>• Director's Order 18: <i>Wildland Fire Management</i></li> <li>• Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i></li> <li>• Director's Order 48B: <i>Commercial Use Authorizations</i></li> <li>• Director's Order 77-2: <i>Floodplain Management</i></li> </ul>



Fundamental Resource or Value	Biodiversity
<p><b>Short Description of Importance</b></p>	<p>The Congaree forest provides important terrestrial and aquatic habitat for many species of plants and animals, particularly those favoring old-growth bottomland forest. The park is particularly valuable as resting and breeding habitat for Neotropical migratory songbirds. Additionally, a number of federal- and state-listed plant and animal species of concern occur in the park.</p>
<p><b>Related Significance Statements</b></p>	<ul style="list-style-type: none"> <li>• Congaree National Park protects the nation’s largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Good, as compared to other similar forests in region.</li> <li>• Ecosystem function has been affected by the loss of several native species regionally over the last several hundred years (black bear, red wolf, ivory-billed woodpecker, red-cockaded woodpecker, Bachman’s warbler).</li> <li>• Ecosystem function has been affected by changes in the historic/natural fire regime.</li> <li>• The park exists within a mosaic of protected lands that is large enough to sustain a regionally representative breadth of flora and fauna.</li> <li>• Ecosystem function has been affected by invasive species including feral hogs and many plant species.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Climate change is causing shifts in phenology (i.e., periodic biological events such as flowering, breeding, migration, etc.).</li> <li>• Invasive species are increasing in the park (both populations and number of species).</li> <li>• Nonnative plant management projects have reduced nonnatives in parts of the park.</li> <li>• New species are entering the park due to range expansions / shifts (e.g., armadillo, coyote). Some range shifts may be associated with climate change.</li> <li>• Development outside the park boundary is resulting in loss of habitat regionally.</li> <li>• The fire regime has changed from historic patterns due to fire suppression and exclusion.</li> </ul>

Fundamental Resource or Value	Biodiversity
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Loss of habitat regionally appears to be affecting populations of some migratory bird species.</li> <li>• Modeled climate change projections suggest a warmer climate future for the park. A warmer and drier landscape could have the following results, among others: (a) a decrease in water resources, both surface and groundwater, with corresponding impacts on aquatic environments; (b) increased frequency and intensity of wildland fire, with possible associated changes in vegetative cover; and (c) an increase in invasive species.</li> <li>• Climate change could degrade or eliminate habitat in the park for some species.</li> <li>• Species with expanding ranges, including both nonnative invasives as well as others endemic to other areas of North America, pose a threat to aquatic and terrestrial resources as well as ecosystem function.</li> <li>• Invasive nonnative plants are beginning to displace native species in some locations.</li> <li>• Hunting, poaching, collecting, and recreational fishing may be affecting populations of plants, animals, and fish.</li> <li>• Continued active management of the fire regime is needed to maintain upland longleaf pine communities. With proper management techniques, these pine communities might once again support red-cockaded woodpeckers in the park.</li> <li>• Contiguous habitat is being lost due to logging on land surrounding the park.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Provide interpretive programs and improve visitor center exhibits to increase public understanding of biodiversity.</li> <li>• Continue to participate with the public in annual butterfly and bird counts and other citizen science opportunities.</li> <li>• Promote Biodiversity Discovery programs.</li> <li>• Enter into partnerships with other land management and wildlife management agencies to protect and enhance biodiversity.</li> <li>• Conduct research on biodiversity and natural processes in the park, including potential impacts of climate change.</li> <li>• Provide public access to the data and analysis acquired from research conducted in the park.</li> <li>• Use Southeast Coast Exotic Plant Management Team and other park programs, staff, and volunteers to assist with nonnative plant management.</li> <li>• Protect biodiversity via law enforcement (engage with public proactively and enforce regulations).</li> <li>• Collaborate with neighboring landowners to attain goals for biodiversity, community resilience, and habitat character.</li> <li>• Mark the park boundary to protect resources by discouraging encroachment, unlawful hunting, and similar impacts.</li> </ul>

<b>Fundamental Resource or Value</b>	<b>Biodiversity</b>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• East End / U.S. Highway 601 corridor: hydrology assessment and comprehensive natural resource inventory of newly acquired land.</li> <li>• Parkwide comprehensive inventory of natural resources.</li> <li>• Parkwide hydrology assessment.</li> <li>• Vegetation map of lands added in 2003 boundary expansion.</li> <li>• Continued monitoring through Inventory &amp; Monitoring Network.</li> <li>• Targeted inventories and mapping of plant and animal species not covered by Inventory &amp; Monitoring Program.</li> <li>• Comprehensive baseline data on invasive plant species including location (maps) and size and density of infestation.</li> <li>• Monitoring data and life-histories of species of concern (bogmint, etc.).</li> <li>• Monitoring of phenology and other phenomena by citizen scientists.</li> <li>• Data on “poaching community” and poaching effects on resources.</li> <li>• Data on impacts of fishing.</li> <li>• Inventory and documentation of upland forest conditions.</li> <li>• Continuous collection of climatological data (temperature, precipitation) to validate what climate future is becoming a reality and to better understand climate-related influences on biodiversity.</li> <li>• Collections condition assessment.</li> <li>• Natural resource condition assessment.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Climate change scenario planning.</li> <li>• Fire management plan – wildland (in progress).</li> <li>• Fisheries management plan.</li> <li>• Integrated pest management plan.</li> <li>• Longleaf pine restoration plan.</li> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Trail management plan.</li> <li>• Upland forest management plan.</li> <li>• Visitor use management plan.</li> <li>• General management plan – new.</li> <li>• Water resources management plan – update.</li> <li>• Wayside plan.</li> <li>• Wilderness stewardship plan.</li> <li>• Wild pig management plan (in progress).</li> <li>• Law enforcement needs assessment / emergency medical services / search and rescue.</li> </ul>

Fundamental Resource or Value	Biodiversity
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Air Act</li> <li>• Clean Water Act</li> <li>• Endangered Species Act</li> <li>• Migratory Bird Treaty Act</li> <li>• Federal Noxious Weed Act</li> <li>• Executive Order 11990, "Protection of Wetlands"</li> <li>• Executive Order 11988, "Floodplain Management"</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• Superintendent's Compendium</li> <li>• NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> <li>• 4.1.1 "Planning for Natural Resource Management"</li> <li>• 4.4.1 "General Principles for Managing Biological Resources"</li> <li>• 4.4.2 "Management of Native Plants and Animals"</li> <li>• 4.4.4 "Management of Exotic Species"</li> <li>• 4.4.5 "Pest Management"</li> </ul> </li> <li>• 4.5 "Fire Management"</li> <li>• 4.6 "Water Resource Management" <ul style="list-style-type: none"> <li>• 4.6.1 "Water Quality"</li> <li>• 4.6.4 "Floodplains"</li> <li>• 4.6.5 "Wetlands"</li> <li>• 4.6.6 "Watershed and Stream Processes"</li> </ul> </li> <li>• 4.7.2 "Weather and Climate"</li> <li>• NPS <i>Wildland Fire Management Reference Manual 18</i></li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director's Order 18: <i>Wildland Fire Management</i></li> <li>• Director's Order 77-1: <i>Wetland Protection</i></li> <li>• Director's Order 77-2: <i>Floodplain Management</i></li> </ul>





Fundamental Resource or Value	Wilderness
<p><b>Short Description of Importance</b></p>	<p>The Congaree National Park Wilderness encompasses large expanses of bottomland forest that are substantially natural, undeveloped, and untrammeled. Other parts of the wilderness have been logged or lightly developed, but are returning to a primitive state through natural succession. People return to this wilderness frequently to experience opportunities for solitude and unconfined recreation. The Congaree National Park Wilderness serves a major metropolitan area, providing a wilderness experience to thousands of visitors per year.</p>
<p><b>Related Significance Statements</b></p>	<ul style="list-style-type: none"> <li>• Congaree National Park protects the nation's largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.</li> <li>• Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>

Fundamental Resource or Value	Wilderness
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Overall condition is good.</li> <li>• With respect to specific qualities of wilderness character, the condition of the park's wilderness is as follows: <ul style="list-style-type: none"> <li>• Untrammelled quality – fair to good. The floodplain itself is not actively manipulated, but is influenced by dams and other upstream factors that affect water quantity and quantity (14,000-square-mile watershed). Some trammeling results from activities such as Cedar Creek clearing, nonnative plant removal, trail clearing, fire crew activities, and the effect remnant features in the floodplain (trenches, dikes, etc.) have on natural water flows.</li> <li>• Natural quality – generally good, but degraded due to altered hydrology, increases in nonnative species, changes in fire regime in the uplands, and feral hog impacts.</li> <li>• Undeveloped quality – excellent in many areas, but quality is degraded in places by the extensive boardwalk system, backcountry bridges, long-term scientific monitoring equipment, plot markers (tree tagging, etc.), trail markers, trash entering the wilderness from upstream during flooding and from visitor recreational use, and the adjacent railroad track.</li> <li>• Opportunities for solitude and unconfined recreation – generally good, but degraded by external intrusion of sounds from boat traffic, vehicular noise, artificial light, the railroad line through the park, and aircraft overflights.</li> <li>• Other features of scientific, educational, scenic, or historical value – this quality encompasses cultural resources in the floodplain, particularly archeological sites and earthen structures of various types, such as cattle mounds and dams. The condition of cultural resources in wilderness is fair to good, but integrity has been compromised by erosion and feral hog rooting.</li> </ul> </li> <li>• Formerly logged areas are recovering.</li> <li>• The boundary is not marked, so visitors are often unaware they are in wilderness.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Untrammelled quality – more trammeling is likely in the future due to external forces (e.g., new upstream impoundments) and continuing park management operations in wilderness (e.g., removal of invasive nonnatives).</li> <li>• Natural quality-management actions have improved the natural quality in some locations by facilitating habitat recovery and re-wilding. In other areas, trends are mixed: <ul style="list-style-type: none"> <li>• Nonnative plant management teams and park staff have worked to remove invasive nonnatives, but infested areas remain and new nonnatives continue to be discovered.</li> <li>• Feral hog management has regulated numbers to a limited extent, but has been unsuccessful so far in reducing population to acceptable levels.</li> </ul> </li> <li>• Undeveloped quality – quality is improving due to the ongoing recovery of logged areas and removal of debris from newly acquired lands.</li> <li>• Opportunities for solitude and unconfined recreation – recent changes in backcountry camping regulations have improved opportunities for solitude.</li> <li>• Other features – erosion and feral hog rooting are slowly wearing away earthen structures and may be affecting archeological sites.</li> </ul>

Fundamental Resource or Value	Wilderness
<p style="text-align: center;"><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Untrammelled quality – increased development in surrounding watersheds could introduce additional pollutants and change the quantity and timing of water entering the park.</li> <li>• Natural quality – natural systems are threatened by the continued spread of nonnative species (including feral hogs). Additional threats include potential impacts brought on by climate change and changes in land use in surrounding watersheds. In particular, modeled climate change projections suggest a warmer climate future for the park. A warmer and drier landscape could have the following results, among others, affecting the natural quality of wilderness: (a) a decrease in water resources, both surface and groundwater; (b) increased frequency and intensity of wildland fire, with possible associated changes in vegetative cover; and (c) an increase in invasive species.</li> <li>• Undeveloped quality – undeveloped nature of the floodplain is compromised by scientific research (equipment, markers), hog management (traps), trail clearing (off-road vehicles, chain saws), and other management activities. These can introduce noise, fumes, and visual intrusions.</li> <li>• Opportunities for solitude and unconfined recreation – solitude in the park diminished by aircraft noise (especially military overflights), vehicle noise, artificial light, and motorboats on the Congaree River.</li> <li>• Other features – earthen structures in the park are threatened by ongoing erosion and feral hog rooting.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Untrammelled quality – work with stakeholders to reduce/ameliorate external activities that trammel wilderness.</li> <li>• Natural quality – remove/manage invasive nonnatives (plant and animal) to restore natural functioning; reintroduce fire where appropriate. (Note: short-term trammeling generates long-term enhancement of natural quality.)</li> <li>• Undeveloped quality – remove additional structures / debris; minimize park administrative use of mechanized equipment in wilderness; train staff in use of traditional tools; work with researchers to minimize use of mechanized equipment.</li> <li>• Opportunities for solitude and unconfined recreation – work with neighbors (e.g., military installations) to reduce noise and lighting impacts; manage visitor use to enhance wilderness experience for all. Work with Midland Area Joint Installation Consortium to address overflights and other impacts on wilderness.</li> <li>• Other features – control feral hog numbers to reduce impacts on earthen structures.</li> </ul> <p><b>General Opportunities</b></p> <ul style="list-style-type: none"> <li>• Investigate alternative methods for law enforcement to patrol wilderness (e.g., horse patrols).</li> <li>• Educate staff regarding wilderness character and requirements for managing designated wilderness.</li> <li>• Interpret wilderness to the public.</li> <li>• Provide wilderness training to outfitters / holders of commercial use authorizations.</li> <li>• Engage with stakeholders outside the park to increase understanding of what wilderness is.</li> <li>• Review and assess how the park staff operates within wilderness.</li> <li>• Review and revise existing minimum requirements analyses for routine park activities in wilderness.</li> </ul>

Fundamental Resource or Value	Wilderness
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Boundary management data (park and wilderness): resurvey the park boundary where necessary; survey wilderness boundary where necessary (especially around development zones); create a legal description of the wilderness boundary; create a GIS layer with park and wilderness boundaries to be used with other maps.</li> <li>• Wilderness character monitoring data.</li> <li>• Wilderness eligibility assessment for land in 2003 boundary expansion.</li> <li>• Analysis of existing acoustic data for overflight frequency and intensity.</li> <li>• Visitor survey regarding wilderness experience.</li> <li>• Continuous collection of climatological data (temperature, precipitation) to validate what climate future is becoming a reality and to better understand climate-related influences on wilderness character.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Climate change scenario planning.</li> <li>• Fire management plan – wildland (in progress).</li> <li>• Integrated pest management plan.</li> <li>• Longleaf pine restoration plan.</li> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Soundscape management plan.</li> <li>• Trail management plan.</li> <li>• Visitor use management plan.</li> <li>• General management plan – new.</li> <li>• Water resources management plan – update.</li> <li>• Wayside plan.</li> <li>• Wilderness stewardship plan.</li> <li>• Wilderness study (to determine eligibility of new lands).</li> <li>• Wild pig management plan (in progress).</li> <li>• Law enforcement needs assessment / emergency medical services / search and rescue.</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Congaree Swamp National Monument Expansion and Wilderness Act (P.L. 100-524, Oct. 24, 1988)</li> <li>• Wilderness Act</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> <ul style="list-style-type: none"> <li>• Chapter 6 “Wilderness Preservation and Management”</li> <li>• 4.7.2 “Weather and Climate”</li> </ul> </li> <li>• NPS <i>Reference Manual 41: Wilderness Stewardship</i></li> <li>• NPS <i>Keeping It Wild in the National Park Service User Guide</i></li> <li>• NPS <i>Wilderness Stewardship Plan Handbook</i></li> <li>• Director’s Order 41: <i>Wilderness Stewardship</i></li> <li>• Superintendent’s Compendium</li> </ul>

<b>Fundamental Resource or Value</b>	<b>Historic and Prehistoric Sites</b>
<b>Short Description of Importance</b>	<p>Congaree National Park protects a variety of archeological and historical resources spanning a time frame from prehistory to the present. Multiple park sites are listed in the National Register of Historic Places. Taken together, the park’s cultural features reflect the South’s bottomland subsistence heritage and related agricultural and commercial practices.</p>
<b>Related Significance Statements</b>	<ul style="list-style-type: none"> <li>• Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Not fully known / to be determined. Most currently identified sites on park lands have yet to be studied in any detail. These include sites already listed in the National Register of Historic Places, as well as sites that are potentially eligible for listing, including Sampson Island and many woodland/archaic sites.</li> <li>• Many additional sites may exist in the floodplain and uplands. These sites remain unidentified and their condition is unknown.</li> <li>• Many existing sites in the floodplain are earthen structures subject to weathering, the erosive effects of repeated flooding, and damage from feral hogs.</li> <li>• Archeological sites along the Congaree and Wateree rivers are subject to exposure and loss.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Support is increasing within the National Park Service for studying and interpreting the park’s historic sites.</li> <li>• NPS funding opportunities for cultural resource work are limited, so parks are engaging more partners to assist with this work.</li> </ul>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Continued hog impacts on significant earthen structures.</li> <li>• Subsidence of earthen structures due to aging, weathering, and flooding.</li> <li>• Damage to sites that the National Park Service is not aware of and hence cannot protect.</li> <li>• Potential for looting of prehistoric and historic artifacts.</li> <li>• Archeological sites along the Congaree and Wateree rivers are subject to exposure and loss.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Use historic sites to expand stories told to park visitors and connect with new, more diverse audiences.</li> <li>• Develop new interpretive programs and products to tell stories about cultural resources and local history.</li> <li>• Partner and engage with traditionally associated tribes including Catawba Indian Nation, Eastern Band of Cherokee Indians, Shawnee, Absentee-Shawnee, Sioux, Tuscarora.</li> <li>• Engage with the local African American community and other communities in the South Carolina Midlands with historic and contemporary ties to the park.</li> <li>• Engage with landowners on the south side of Congaree River having historic ties to the park.</li> <li>• Conduct research on historic sites.</li> <li>• Protect historic sites via law enforcement.</li> </ul>

<b>Fundamental Resource or Value</b>	<b>Historic and Prehistoric Sites</b>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• East End / U.S. Highway 601 corridor: baseline survey of new lands for cultural resources.</li> <li>• Parkwide comprehensive inventory of cultural resources.</li> <li>• Archeological overview and assessment – update.</li> <li>• Ethnographic overview and assessment.</li> <li>• Cultural landscape inventories.</li> <li>• Historic resource study.</li> <li>• Identification of historic sites on Cedar Creek and other likely areas of human occupation.</li> <li>• Surveys for evidence of De Soto and Juan Pardo expeditions, as well as possible maroon community sites.</li> <li>• Digitized versions of plats and maps (and associated archival material).</li> <li>• Updated List of Classified Structures database and continued periodic condition assessments.</li> <li>• Historic research bibliography.</li> <li>• Thorough archeological investigation and documentation of known sites.</li> <li>• Research needs assessment.</li> <li>• Geodatabase for cultural resource research.</li> <li>• Collections condition assessment.</li> <li>• Update national register nominations.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Climate change scenario planning.</li> <li>• Fire management plan – structural.</li> <li>• Fire management plan – wildland (in progress).</li> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Trail management plan.</li> <li>• Upland forest management plan.</li> <li>• Visitor use management plan.</li> <li>• General management plan – new.</li> <li>• Wayside plan.</li> <li>• Wilderness stewardship plan.</li> <li>• Wild pig management plan (in progress).</li> </ul>

Fundamental Resource or Value	Historic and Prehistoric Sites
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• National Historic Preservation Act, as amended (16 USC 470)</li> <li>• Archeological and Historic Preservation Act</li> <li>• Archaeological Resources Protection Act</li> <li>• Native American Graves Protection and Repatriation Act</li> <li>• Advisory Council on Historic Preservation regulations, "Protection of Historic Properties" (36 CFR 800)</li> <li>• Curation of Archeological Collections (36 CFR 79)</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• Superintendent's Compendium</li> <li>• <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties</i></li> <li>• <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• Programmatic Agreement (2008) among the National Park Service, Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers</li> <li>• NPS Management Policies 2006             <ul style="list-style-type: none"> <li>• 4.7.2 "Weather and Climate"</li> <li>• 5.3.4 "Stewardship of Human Remains and Burials"</li> <li>• 5.3.5 "Treatment of Cultural Resources"                 <ul style="list-style-type: none"> <li>• 5.3.5.1 "Archeological Resources"</li> <li>• 5.3.5.4 "Historic and Prehistoric Structures"</li> </ul> </li> </ul> </li> <li>• "NPS-28: Cultural Resource Management Guideline"</li> <li>• Director's Order 24: <i>NPS Museum Collections Management</i></li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 28A: <i>Archeology</i></li> </ul>

## Analysis of Other Important Resources and Values

Other Important Resource or Value	Human Interaction with the Land
<p><b>Short Description of Importance</b></p>	<p>The park protects sites important to people traditionally associated with the lower Congaree watershed. Among these are descendants of such groups as American Indians, enslaved Africans, free people of color, European settlers, planters / plantation owners, farmers, boatmen, and loggers. People traditionally associated with the park include families north and south of the river with longstanding ties to the floodplain, as well as people from farther away who hunted and camped in the floodplain for many years before it was a park. The park works to provide access to and understanding of the lands, resources, and stories associated with these groups for a diverse visiting public.</p>
<p><b>Related Significance Statements</b></p>	<ul style="list-style-type: none"> <li>• Congaree National Park protects the nation's largest remaining tract of Southern old-growth bottomland forest and a significant expanse of associated floodplain.</li> <li>• Congaree National Park preserves unique regional cultural history, archeological sites, and landscape features that document evolving agricultural, commercial, and social practices in the bottomlands and forests of the South Carolina Midlands.</li> <li>• The Congaree National Park Wilderness preserves the wilderness character of the largest expanse of old-growth bottomland forest in the National Wilderness Preservation System and provides opportunities to experience solitude, challenge, and adventure that are unique to this landscape.</li> </ul>
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Many local residents have strong ancestral and contemporary ties to the lands comprising Congaree National Park.</li> <li>• Park research has provided some data on these human interactions and cultural history, including some oral history projects. However, more research is needed to fully document and understand the significance of these connections.</li> <li>• Communities in Lower Richland County are actively engaged in maintaining the traditional rural character of the area while promoting targeted sustainable economic development. The park works cooperatively with Southeast Rural Community Outreach and other partners to further these efforts.</li> <li>• Local community leadership views the park as a potential partner in promoting sustainable tourism in the area; however, in some instances opposition to park expansion and land use policies protecting park resources is strong.</li> <li>• Segments of the public have limited understanding of the historical and natural significance of the park and are unaware of the recreational opportunities available at the park. Participation in these opportunities may help visitors appreciate the significance of the natural and cultural history.</li> <li>• Visitor access is limited over much of the park due to rough terrain and the lack of facilities such as trails and trailheads.</li> <li>• Some types of recreation (e.g., bicycle use) are incompatible with wilderness designation and recreation must be restricted in some instances to protect park resources.</li> <li>• The park has traditionally served a relatively narrow range of visitors with limited diversity. Some people feel unwelcome at the park; others are put off by the idea of visiting a "swamp" (heat, insects, snakes, etc.).</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Diverse populations continue to be underrepresented among park visitors.</li> <li>• Greater efforts are being made within the National Park Service to promote diversity and inclusion and make the parks relevant to a wider segment of the population.</li> <li>• Young people are not experiencing national parks as much or in the same ways as the previous generation.</li> <li>• Park staff are conducting more programs outside the park to engage a broader, more diverse audience.</li> </ul>

Other Important Resource or Value	Human Interaction with the Land
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Stories will be lost if not captured before associated people die or move away.</li> <li>• The park is making fewer connections with associated people than it could. Reasons include perceptions that Congaree National Park is unwelcoming to minorities, it is difficult/uncomfortable to visit (i.e., few access points, hot and buggy), or it is dangerous (a “swamp” with snakes, spiders, etc.).</li> <li>• A lack of perceived relevance could lead to diminished stewardship and support by the public.</li> <li>• The potential exists for visitors to be exposed to diseases (e.g., Lyme disease, avian flu).</li> <li>• Some dangers posed by hunting are taking place on lands bordering the park.</li> <li>• Feral hogs and off-leash dogs (including visitor pets and stray hunting dogs) could potentially harm visitors.</li> <li>• Demand for parking exceeds supply on some weekends, often resulting in resource damage from illegally parked cars.</li> <li>• Inadequate boundary marking poses a danger to visitors who wander onto private property.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Identify/research people who are traditionally associated with Congaree National Park.</li> <li>• Increase education about the people traditionally associated with the old-growth forest through proactive community involvement.</li> <li>• Develop interpretive programs and products about traditional uses of park lands and deep cultural connections in Lower Richland and surrounding counties.</li> <li>• Reach out to members of the public who don’t currently visit the park.</li> <li>• Increase the diversity of the park’s visitor base and staff.</li> <li>• Develop long-term partnerships with schools in Lower Richland County and throughout the Midlands.</li> <li>• Gather oral histories and obtain untold stories.</li> <li>• Provide facilities allowing public access to more parts of the park.</li> <li>• Provide opportunities for visitor use along the U.S. Highway 601 corridor, such as providing public access to the Congaree River via Bates Old River causeway.</li> <li>• Provide new types of recreational opportunities (mountain biking, etc.) in appropriate locations.</li> <li>• Facilitate greater participation in current activities (birding, camping, paddling, hiking, interpretation programs, etc.).</li> <li>• Investigate additional ways to make recreational opportunities available to the public through commercial use authorizations, concessions contracts, and/or new partnerships.</li> <li>• Identify opportunities to engage more diverse audiences (including age, race, and socioeconomic status).</li> <li>• Make better use of electronic media to communicate with visitors in and out of the park (wireless internet, park website, Facebook, etc.).</li> <li>• Investigate the feasibility of introducing fees and/or a reservation system for canoe trips, camping, and other park activities.</li> <li>• Engage with resource management and interpretation partners within the Congaree and Wateree watersheds to identify opportunities for collaborative work.</li> </ul>

Other Important Resource or Value	Human Interaction with the Land
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Archeological overview and assessment – update.</li> <li>• Ethnographic overview and assessment.</li> <li>• Oral histories.</li> <li>• Cultural landscape inventories.</li> <li>• Identities of peoples traditionally associated with the park.</li> <li>• Information on any additional tribes traditionally associated with the park other than those currently identified by NPS staff (which include Catawba Indian Nation, Eastern Band of Cherokee Indians, Shawnee, Absentee-Shawnee, Sioux, and Tuscarora).</li> <li>• Historic resource study.</li> <li>• Demographic information on park visitors and target audiences.</li> <li>• Determine whether the park was a stop on the Underground Railroad.</li> <li>• Research needs assessment.</li> <li>• Collections condition assessment.</li> <li>• Study of parking issues.</li> <li>• Feasibility of establishing concessions within the park.</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Long-range interpretive plan (in progress).</li> <li>• Resource stewardship strategy.</li> <li>• Sign plan (parkwide wayfinding and informational).</li> <li>• Wayside plan.</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV</b></p> <ul style="list-style-type: none"> <li>• National Historic Preservation Act, as amended (16 USC 470)</li> <li>• Archaeological Resources Protection Act</li> <li>• Native American Graves Protection and Repatriation Act</li> <li>• Advisory Council on Historic Preservation regulations, “Protection of Historic Properties” (36 CFR 800)</li> <li>• Executive Order 11593, “Protection and Enhancement of the Cultural Environment”</li> <li>• “NPS-28: Cultural Resource Management Guideline”</li> <li>• Americans with Disabilities Act of 1990</li> <li>• Architectural Barriers Act of 1968</li> <li>• Architectural Barriers Act Accessibility Standards 2006</li> <li>• Rehabilitation Act of 1973</li> <li>• NPS Concessions Management Improvement Act of 1998</li> </ul>

Other Important Resource or Value	Human Interaction with the Land
<p>Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance</p>	<p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• Superintendent's Compendium</li> <li>• NPS Management Policies 2006                             <ul style="list-style-type: none"> <li>• 5.3.5 "Treatment of Cultural Resources"                                     <ul style="list-style-type: none"> <li>• 5.3.5.1 "Archeological Resources"</li> <li>• 5.3.5.3 "Ethnographic Resources"</li> <li>• 5.3.5.4 "Historic and Prehistoric Structures"</li> </ul> </li> <li>• Chapter 7 "Interpretation and Education"</li> <li>• Chapter 8 "Use of the Parks"</li> <li>• Chapter 9 "Park Facilities"</li> <li>• Chapter 10 "Commercial Visitor Services"</li> </ul> </li> <li>• Director's Order 6: <i>Interpretation and Education</i></li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 28A: <i>Archeology</i></li> <li>• Director's Order 28B: <i>Ethnography</i></li> <li>• Director's Order 42: <i>Accessibility for Visitors with Disabilities in NPS Programs, Facilities, and Services</i></li> <li>• Director's Order 48B: <i>Commercial Use Authorizations</i></li> </ul>



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

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

- **General Management Direction.** The park needs updated general management guidance for resource protection and visitor access and use. The park's existing general management plan is 25 years old and no longer provides useful guidance to park staff. The park faces new threats to park resources from climate change and other internal and external sources, and it must manage a larger number of visitors, researchers, and students than anticipated in the 1988 plan. A planning process is needed to establish desired future conditions for natural and cultural resources and to identify appropriate types and levels of visitor use consistent with the park's purpose and significance. In particular, planning is needed to guide public use and resource management of the approximately 4,576 acres added to the park in 2003.
- **Appropriate Staffing Levels.** When projecting staffing needs, the park's 1988 general management plan failed to anticipate the changed circumstances and new management imperatives now affecting the park. Among these are a rapidly developing adjacent community, a new park entrance road and visitor center, and increased visitation resulting from improved facilities. All of these changes have intensified demands on the existing maintenance staff and required the park to rely much more heavily on volunteers to provide visitor services. Similarly, the establishment of an NPS Learning Center and NPS Exotic Plant Management Team, the addition of important new natural and cultural resources to the park in 2003, and the need to restore significant habitats in the upland areas of the park have all placed demands on the resource management staff that did not exist in 1988. Taken together, these developments have had a substantial impact on park operations, including staff workloads and the need for additional employees with different areas of expertise.
- **Strategies for Comprehensive Resource Protection.** The park has many needs for documenting and assessing the cultural and natural resources within its boundary. The park also lacks specific desired future conditions for natural and cultural resources. In addition, there is a need to develop adaptive management approaches to mitigate threats from human activities (e.g., threats to the quality of water entering the park) as well as those from environmental forces, including climate change. A resource stewardship strategy that incorporates research results would take an integrated natural and cultural resources approach to identify conservation objectives, potential activities for managing resources, and implementation strategies.

- **Wilderness Stewardship Planning.** Approximately 84% of the federally owned lands in Congaree National Park are managed as wilderness. The park lacks a wilderness stewardship plan to guide management of its 21,700 acres of designated wilderness and 150 acres classified as potential wilderness. A wilderness stewardship plan would establish the park’s wilderness vision, identify management actions necessary to preserve and enhance wilderness character, and provide a working guide for NPS staff responsible for the long-term and day-to-day management of wilderness resources. Additionally, a plan would include analysis and direction regarding dispersed versus site-based camping, waste management, signage, restoration of areas altered by manmade activities, and minimum tools requirements for anticipated operations/ activities in the wilderness.
- **Wilderness Study.** NPS policy requires that a wilderness eligibility assessment be conducted on the approximately 4,576 acres added to the park in 2003. Should any of these lands be found eligible for wilderness designation, the park will need to do a wilderness study to determine which of these lands, if any, should be formally proposed for wilderness designation.
- **Boundary Management.** The park boundary is poorly marked in places, and the wilderness boundary is not marked at all. The park needs to better mark these boundaries in order to address encroachment, poaching, and other law enforcement and resource management issues. There are a number of locations where the location of the wilderness boundary has yet to be precisely established, leading to confusion about what activities are allowable in these areas. The wilderness boundary needs to be surveyed in key areas, especially in the vicinity of the park’s development zones. Another boundary issue involves access to the park’s western boundary road and associated boat landing on the Congaree River. The entire road is within the park boundary, but at present some stretches are privately owned, and NPS use of these stretches is by permission only. Permanent, dedicated NPS access is needed, as the road and landing are critical to various park programs.
- **Develop Formal Partnerships.** For a number of years the park has worked fruitfully, but often informally, with park partners, including the Friends of Congaree Swamp. The park needs to further develop its relationship with existing partners and actively pursue new partnership opportunities to achieve shared goals and objectives. Partnerships should be formalized by developing and signing mutually beneficial memorandums of agreement between the park and all active partners.

## 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 OIRV?	Planning Needs	Priority (H, M, L)	Notes
FRV	General management plan / general management plan amendment / visitor use management plan	H	A new general management plan (GMP) is needed to establish management zones in the park, prescribe appropriate uses in each zone, describe desired future resource conditions, and identify facility and staffing needs. A visitor use management plan, whether prepared separately or as part of the GMP, would manage visitor access and use of all park lands, would establish appropriate uses and how to accommodate increased demand for recreation, and would address carrying capacity. The GMP or a separate planning document (e.g., GMP amendment) would need to devote particular attention to the 4,576 acres of expansion lands added in 2003. This area is potentially the site of significant visitor use activity, and no planning has ever been done for this part of the park.
FRV & OIRV	Resource stewardship strategy	H	Would guide long-term investment in resource stewardship by recommending comprehensive strategies for achieving and maintaining desired conditions of the park's natural and cultural resources.
FRV	Wilderness stewardship plan	H	Needed to set goals and develop strategies for preserving and enhancing wilderness character in the park.
FRV	Wilderness eligibility assessment and wilderness study	H	Required by policy to evaluate the 4,576 acres included in the park's recent expansion and determine whether wilderness should be proposed in this area.
FRV	Fire management plan – structural	H	Needed to identify fire prevention and response activities for the visitor center, maintenance facility, research and education center, fire cache, etc.
FRV	Fire management plan – wildland (update)	H	In progress.
FRV	Water resources management plan update	H	Would collect and synthesize recent research on the park's water resources, revisit and update significant water resource management issues facing the park, and recommend activities for addressing these issues.
FRV	Wild pig management plan	H	In progress.
FRV & OIRV	Long-range interpretive plan	H	In progress.
FRV	Law enforcement needs assessment	H	
FRV & OIRV	Wayside plan	M	Needed to identify the content and location of waysides in the park.
FRV	Trail management plan	M	Would explore opportunities for extending the park's trail system beyond the western third of the park, where the existing trail system is located.
FRV & OIRV	Sign plan	M	Would establish the design and location of signs to assist visitors with wayfinding in the park.

Planning Needs – Where A Decision-making Process Is Needed			
Related to an FRV or OIRV?	Planning Needs	Priority (H, M, L)	Notes
FRV	Climate change scenario planning	M	Needed to describe how the park intends to adapt its management of natural and cultural resources in the face of climate change, and account for changing conditions and threats with respect to human and built assets. This process will facilitate an understanding of the range of climate futures that are plausible at the park, and the associated impacts. The data need, “downscaled climate modeling data” (see below), will support the climate change scenario planning process.
FRV	Integrated pest management plan	L	Needed to outline methods for managing plant and animal pests using least toxic effective treatment.
	Park housing management plan	L	Needed to assess the park’s need for employee and cooperator housing, especially with respect to the Old-Growth Bottomland Forest Research and Education Center.
	Publications and communications plan – Congaree National Park	L	Needed to address strategies for communicating the park’s purpose, significance, and resources to the public, together with information about NPS management initiatives.
	Publications and communications plan – Old-Growth Bottomland Forest Research and Education Center	L	Needed to address strategies for communicating the activities and research results of the Old-Growth Bottomland Forest Research and Education Center to park staff and the public at large.
FRV	Soundscape management plan	L	Needed to identify what levels of human-caused sound can be accepted at the park consistent with the park’s purpose.
	Exhibit plan	L	A prerequisite to updating the current visitor center exhibits.
FRV	Upland forest management plan	L	Would detail strategies for maintaining and enhancing existing longleaf pine habitat, as well as restoring degraded upland habitats to more natural conditions.
FRV	Longleaf pine restoration plan	L	Needed for restoring longleaf pine forest in suitable upland areas of the park.
	Land protection plan (update)	L	Would reevaluate priorities for land acquisition within the existing boundary.
FRV	Fisheries management plan	L	Needed to identify the fish species to be managed in the park, the desired future conditions to be achieved, the areas that would be open to fishing, and the process by which regulations would be set.
	Boundary study	L	The park has been approached by individuals offering to sell land to the National Park Service. Some of the offered tracts could add important resources or address management issues.
FRV	Stormwater management plan	L	To address increased stormwater runoff resulting from development in Cedar Creek and Toms Creek watersheds.
FRV	GIS data management plan	L	

<b>Data Needs – Where Information Is Needed Before Decisions Can Be Made</b>			
<b>Related to an FRV or OIRV?</b>	<b>Data and GIS Needs</b>	<b>Priority (H, M, L)</b>	<b>Notes</b>
FRV	East End / U.S. Highway 601 Corridor: <ul style="list-style-type: none"> <li>Hydrology assessment of newly acquired lands along U.S. Highway 601 corridor</li> <li>Natural resource inventories for newly acquired lands along U.S. Highway 601 corridor</li> </ul>	H	
FRV	Baseline survey of new lands for cultural resources	H	Survey would support update of archeological overview and assessment.
FRV	East End / U.S. Highway 601 Corridor – data on: <ul style="list-style-type: none"> <li>Assessment of visitor interest in park access along U.S. Highway 601 corridor</li> <li>Assess need for additional visitor contact stations and/or signage parkwide</li> <li>Assess condition of road between U.S. Highway 601 and the river</li> <li>Assess condition of other park infrastructure</li> </ul>	H	Data would assist the park in determining what recreational opportunities are suitable and feasible on the expansion lands east of the Norfolk Southern rail line.
FRV	Complete a parkwide hydrology assessment	H	
FRV	Complete a parkwide, comprehensive inventory of natural and cultural resources	H	
FRV	Boundary management data (park and wilderness): <ul style="list-style-type: none"> <li>Updated park boundary survey</li> <li>Updated wilderness boundary survey</li> <li>Create legal description of wilderness boundary</li> <li>Create GIS layer with park and boundaries to be used with other maps</li> <li>Identify areas for fire breaks on boundary</li> </ul>	H	Data would allow the park to better manage the park boundary, as well as locate and mark the park's wilderness boundary.
	<ul style="list-style-type: none"> <li>Assess NPS right of access to western boundary road</li> <li>Study alternative access to western boundary road</li> </ul>	H	Data would help the park establish dedicated access to the western boundary road and NPS landing on the Congaree River.
	Study potential for RV camping	H	Study would help determine whether this use is feasible for the park.
OIRV	Study of parking issues, to include examination of visitor use data, assessment of park capacity for parking expansion, adequacy of existing access to key visitor areas, and effectiveness of current security measures	H	Needed to determine long-term parking needs of park visitors and staff and possibility/need for expansion.

<b>Data Needs – Where Information Is Needed Before Decisions Can Be Made</b>			
<b>Related to an FRV or OIRV?</b>	<b>Data and GIS Needs</b>	<b>Priority (H, M, L)</b>	<b>Notes</b>
FRV & OIRV	Oral histories	H	Needed to better understand and preserve history of the park and local area. Interviews needed with park neighbors and individuals or communities traditionally associated with the park’s lands.
FRV	Water quality monitoring data	H	Data would inform park staff and public about short- and long-term trends in water quality within the park.
FRV & OIRV	Feasibility of establishing concessions within the park	H	Study is needed to determine whether establishing concessions would improve visitor services in a way that is financially feasible for concessioners, without placing undue administrative burdens on the park.
FRV	Identify appropriate staffing levels	H	Data would support general management planning.
FRV	Obtain watershed data: <ul style="list-style-type: none"> <li>• Baseline data and modeling of current, local watershed conditions</li> <li>• Geologic and hydrologic data on proposed developments in upstream watersheds</li> <li>• Information on current and projected land use changes in Columbia and areas surrounding the park</li> </ul>	H	Data are needed for the park to be knowledgeable about short- and long-term trends in quality and quantity of water entering the park. Data could be used to help inform growth and development decisions in Lower Richland County.
FRV	Natural resource condition assessment	H	
FRV	Big tree survey	H	In progress.
FRV	Continued monitoring through Inventory & Monitoring Network	H	In progress. Needs to continue for effective resource management.
FRV	Identify historic sites on Cedar Creek and other likely areas of human occupation	M	Additional archeological sites probably exist in the park, but have not yet been identified.
OIRV	Identities of tribes and other peoples traditionally associated with the park, together with information on places and objects important to associated peoples	M	Needed for ethnographic studies and outreach.
FRV & OIRV	Ethnographic overview and assessment	M	Would provide a comprehensive survey of park resources valued by traditionally associated peoples and identify needs for further research.

<b>Data Needs – Where Information Is Needed Before Decisions Can Be Made</b>			
<b>Related to an FRV or OIRV?</b>	<b>Data and GIS Needs</b>	<b>Priority (H, M, L)</b>	<b>Notes</b>
FRV & OIRV	Archeological overview and assessment (update)	M	Would revise the park's existing archeological overview and assessment to address archeological resources present on the expansion lands added in 2003.
FRV & OIRV	Historic resource study	M	Would synthesize all available cultural resource information to serve as a reference for the history of the region and the resources within the park.
FRV	Identify impacts of trail clearing on Cedar Creek (i.e., removal of natural material and depositing cut material in stream channel)	M	The park has never studied impacts of trail clearing on benthic and other communities, stream morphology, etc.
FRV	Identify impacts of people on big trees (i.e., trampling near sensitive roots, soil compaction, etc.)	M	Data would allow the park to determine whether trampling is affecting the health and mortality of big trees.
FRV	GIS data (update and manage)	M	Needed to improve the park's GIS capabilities.
FRV	Analysis of existing acoustic data for overflight frequency and intensity	M	Needed to assess the extent of overflights at the park, and potential impacts on park visitors and resources.
FRV	Update national register nominations	M	Update needed to provide additional information on existing listings and to nominate new sites.
FRV	Continuous collection of climatological data (temperature, precipitation)	M	Needed to validate what climate future is becoming a reality and to better understand climate-related influences on park resources and values.
FRV	Downscaled climate modeling data	M	Needed to project possible impacts of climate change on the park.
FRV	Wilderness character monitoring data	M	Would allow the park to establish a baseline of the park's wilderness character and monitor its change over time.
FRV & OIRV	Cultural landscape inventories	L	Needed to provide a comprehensive inventory of all culturally and historically significant landscapes within the park.
FRV & OIRV	Collections condition assessment	L	Would detail the state of preservation of items in the park's various collections.

<b>Data Needs – Where Information Is Needed Before Decisions Can Be Made</b>			
<b>Related to an FRV or OIRV?</b>	<b>Data and GIS Needs</b>	<b>Priority (H, M, L)</b>	<b>Notes</b>
OIRV	Demographic information on park visitors and target audiences	L	Should be updated every five years.
	Housing needs assessment	L	Would support park housing management plan.
FRV	Visitation use data for Cedar Creek (trips led by the National Park Service and authorized outfitters)	L	Would allow the park to assess need for concessioner on Cedar Creek.
	Identify process to maintain and mark Blue Trail camp site on Congaree River	L	
FRV	Digitized versions of historic plats, maps, and associated archival material	L	Materials have been collected; digitizing them would make them more accessible to researchers.
FRV	Vegetation map of lands added in 2003 park expansion	L	Existing vegetation map needs to be augmented to cover new lands.
FRV	Comprehensive baseline data on invasive plant species	L	To include location (maps) and size and density of infestation.
FRV	Effects of invasive species and vines on big trees	L	
FRV	Data on forest health, species health, status of vegetation regeneration	L	
FRV	Data on threats to forest health from climate change	L	
FRV	Assessment of impacts on bottomland forest from changes in hydrology	L	The hydrology of the floodplain is changing due to upstream impoundments and local groundwater withdrawal, with unknown impacts on forest composition.
FRV	Data from continued and expanded long-term water quality monitoring, including monitoring by the U.S. Geological Survey; expanded monitoring of waters entering and exiting the park; physical hydrology monitoring (Cedar Creek, Congaree, and Wateree rivers)	L	
FRV	Build-out analysis for Cedar Creek and Toms Creek watersheds to inform growth and development decisions in Lower Richland County	L	
FRV	Impacts on fish from fishing in park waters	L	
FRV	Assessment of air quality impacts on bottomland forest	L	
FRV	Assessment of pest/pathogen impacts on bottomland forest	L	

<b>Data Needs – Where Information Is Needed Before Decisions Can Be Made</b>			
<b>Related to an FRV or OIRV?</b>	<b>Data and GIS Needs</b>	<b>Priority (H, M, L)</b>	<b>Notes</b>
FRV	Monitoring data and life-histories of species of concern (bogmint, etc.)	L	
FRV	Monitoring of phenology and other phenomena by citizen scientists	L	Use of citizen scientists would allow collection of much more data than would otherwise be available.
FRV	Condition assessment of land adjoining water bodies (oxbow lakes, guts, streams, Wateree and Congaree River channels), including impacts from feral hogs	L	Land adjoining water bodies is particularly susceptible to impacts from invasive plants and rooting by feral hogs.
FRV	Surveys for evidence of De Soto and Juan Pardo expeditions, as well as possible maroon community sites	L	Archeological evidence is needed to confirm that the park was visited by De Soto and Pardo, and that maroon communities were present.
FRV	Data on “poaching community” and poaching effects on resources	L	
FRV	Targeted inventories and mapping of plant and animal species not covered by Inventory & Monitoring Program	L	Expanded inventories would document additional species important to the park.
FRV	Inventory and documentation of upland forest conditions	L	Would provide baseline information on uplands and allow the park to target environmental restoration activities.
FRV & OIRV	Research needs assessment	L	Would allow staff to identify areas where additional research is needed on park resources.
FRV	Updated List Of Classified Structures; continued periodic condition assessments	L	Needed to identify additional structures for the List Of Classified Structures and monitor their condition.
	Economic impacts of park on local and regional economy	L	
FRV	Visitor survey regarding wilderness experience	L	
FRV	Historic research bibliography	L	
FRV	Thorough archeological investigation and documentation of known sites	L	
FRV	Geodatabase for cultural resource research	L	
OIRV	Determine whether the park was a stop on the Underground Railroad	L	

## Part 3: Contributors

### Park

Tracy Stakely, Superintendent  
Jonathan Belson, Administrative Officer  
Doug Crossen, Facility Manager  
Lauren Gurniewicz, Chief of Interpretation  
Terri Hogan, Chief of Integrated Resource Management  
Duane Michael, Chief of Visitor and Resource Protection  
Frank Henning, Director, Old-Growth Bottomland Forest Research and Education Center  
David Shelley, Education Coordinator, Old-Growth Bottomland Forest Research and Education Center  
Chris Barrows, Administrative Support Assistant  
Lindsay Compton, Park Ranger (I)  
Corinne Fenner, Park Ranger (I)  
Jared Gurtler, Park Ranger (LE)  
Joe Meekins, Park Ranger (LE)  
Jamie Howard, Park Ranger (I), Old-Growth Bottomland Forest Research and Education Center  
Sean Kelsay, Maintenance Worker  
Leona McManus, Maintenance Worker  
John Torrence, Maintenance Worker  
Theresa Yednock, Biological Science Technician

### Region

Jami Hammond, Regional Environmental Coordinator, Southeast Regional Office  
Mark Kinzer, Environmental Protection Specialist / Regional Wilderness Coordinator, Southeast Regional Office  
Joe DeVivo, Program Coordinator, Southeast Coast Inventory and Monitoring Network

### Other NPS Staff

John Paul Jones, Visual Information Specialist, Denver Service Center – Planning  
Ken Bingenheimer, Contract Editor, Denver Service Center – Planning

## Appendixes

### Appendix A: Enabling Legislation and Legislative Acts for Congaree National Park

94TH CONGRESS } HOUSE OF REPRESENTATIVES { REPORT  
2d Session } { No. 94-1570

#### AUTHORIZING THE ESTABLISHMENT OF THE CONGAREE SWAMP NATIONAL PRESERVE IN THE STATE OF SOUTH CAROLINA, AND FOR OTHER PURPOSES

SEPTEMBER 16, 1976.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. HALEY, from the Committee on Interior and Insular Affairs, submitted the following

#### REPORT

[To accompany H.R. 11891]

The Committee on Interior and Insular Affairs, to whom was referred the bill (H.R. 11891) To authorize the establishment of the Congaree Swamp National Preserve in the State of South Carolina, and for other purposes, having considered the same, report favorably thereon with amendments and recommend that the bill as amended do pass.

The amendments are as follows:

Page 1, beginning on line 3, strike out all after the enacting clause and insert in lieu thereof the following:

That in order to preserve and protect for the education, inspiration, and enjoyment of present and future generations an outstanding example of a near-virgin southern hardwood forest situated in the Congaree River floodplain in Richland County, South Carolina, there is hereby established the Congaree Swamp National Monument (hereinafter referred to as the "monument"). The monument shall consist of the area within the boundary as generally depicted on the map entitled "Congaree Swamp National Monument", numbered CS-80,001-B, and dated August 1976 (generally known as the Beidler Tract), which shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior. Following reasonable notice in writing to the Committees on Interior and Insular Affairs of the Senate and House of Representatives of his intention to do so, the Secretary of the Interior (hereinafter referred to as the "Secretary") may make minor revisions of the boundary of the monument by publication of a revised map or other boundary description in the Federal Register, but the total area may not exceed 15,200 acres.

Sec. 2. (a) Within the monument the Secretary is authorized to acquire lands, water, and interest therein by donation, purchase with donated or appropriated funds, or exchange. Any lands or interests therein owned by the State of South Carolina or any political subdivision thereof may be acquired only by donation.

(b) With respect to any lands acquired under the provisions of this Act which at the time of acquisition are leased for hunting purposes, such acquisition shall permit the continued exercise of such lease in accordance with its provisions for its unexpired term, or for a period of five years, whichever is less: *Provided*, That no provision of such lease may be exercised which, in the opinion of the

Secretary, is incompatible with the preservation objectives of this Act, or which is inconsistent with applicable Federal and State game laws, whichever is more restrictive.

SEC. 3. (a) The Secretary shall administer property acquired for the monument in accordance with the Act of August 25, 1916 (39 Stat. 535), as amended and supplemented, and the provisions of this Act.

(b) The Secretary shall permit sport fishing on lands and waters under his jurisdiction within the monument in accordance with applicable Federal and State laws, except that he may designate zones where and establish periods when no fishing shall be permitted for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment. Except in emergencies, any regulations promulgated under this subsection shall be placed in effect only after consultation with the appropriate fish and game agency of the State of South Carolina.

SEC. 4. Within three years from the effective date of this Act, the Secretary shall review the area within the monument and shall report to the President, in accordance with subsections 3(c) and 3(d) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132 (c) and (d)), his recommendation as to the suitability or nonsuitability of any area within the monument for preservation as wilderness, and any designation of any such areas as wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

SEC. 5. (a) There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act, but not to exceed \$35,500,000 for land acquisition, and not to exceed \$500,000 for the development of essential facilities. No funds authorized to be appropriated pursuant to this Act shall be available prior to October 1, 1977.

(b) Within three years from the effective date of this Act the Secretary shall, after consulting with the Governor of the State of South Carolina, develop and transmit to the Committees on Interior and Insular Affairs of the United States Congress a general management plan for the use and development of the monument consistent with the purposes of this Act, indicating:

(1) the lands and interests in lands adjacent or related to the monument which are deemed necessary or desirable for the purposes of resource protection, scenic integrity, or management and administration of the area in furtherance of the purposes of this Act, and the estimated cost thereof;

(2) the number of visitors and types of public use within the monument which can be accommodated in accordance with the protection of its resources;

(3) the location and estimated cost of facilities deemed necessary to accommodate such visitors and uses.

#### Amend the title so as to read:

To authorize the establishment of the Congaree Swamp National Monument in the State of South Carolina, and for other purposes.

#### PURPOSE

The purpose of H.R. 11891<sup>1</sup>, as reported by the Committee on Interior and Insular Affairs, is to establish an area of some 15,000 acres in the State of South Carolina as the Congaree Swamp National Monument.

A specific boundary map for the monument is referenced, certain directions are given to the Secretary of the Interior for management of the area, and appropriations are authorized within maximum limits for land acquisition and interim development purposes.

#### BACKGROUND

The Congaree River, meandering through a broad floodplain in central South Carolina, is the setting for the finest remaining example

<sup>1</sup> H.R. 11891 was introduced on February 16, 1976, by Representative Floyd Spence. A companion measure, H.R. 12111, was introduced on February 23 by Representatives Spence, Davis, Derrick, Holland, Jenrette and Mann.

of our southern bottomland hardwood forests. In this long settled region of our Nation, where timber has for years been an important economic resource, a portion of the forest along this river has endured. Less than 20 miles from the State Capitol of Columbia, the Congaree Swamp contains several "national champion" trees, the largest recorded of their species in the United States, in addition to some two dozen State record trees. Of greater significance than any individual tree, however, is that the Congaree Swamp represents a unique example of a magnificent and once extensive forest type which is now only a memory throughout most of its former range.

The National Park Service called early attention to this forest, studying the area and in 1963 recommending that a national monument be established in the swamp. Although no action was taken on this proposal, a number of organizations and individuals began to examine the natural qualities of this entire portion of the Santee River system drainage. Although proposals were made at various times which encompassed far larger acreages, the key parcel in any recommendation for preservation has been the approximately 15,000 acres known as the "Beidler Tract".

The Beidler Tract, remaining in the ownership of a single family for generations, has until recent years escaped extensive timber harvesting. Although some logging of cypress had been carried out around the turn of the century, most of the property has been left untouched. On this single ownership are the largest concentration of champion trees in the Congaree, and here lies the best opportunity for continued preservation of an example of this forest type.

But timber operations commenced on the property in 1969, and are progressing at a rate of about 500 acres annually. The owners of the tract view the property as a valuable investment which must be managed for its economic benefits. The consequences are obvious; in a few short years, there will be no Congaree Swamp worthy of the name.

H.R. 11891 represents a commitment to protect this single most important tract by establishing a Congaree Swamp National Monument which can preserve this unique forest community in perpetuity. It is important to note that in the National Park System Plan, a document produced several years ago in which the National Park Service classified the significant natural features of the Nation, the eastern deciduous forest of the Atlantic coastal plain was identified as a resource type of "prime significance" which had *no* representation in the national system. Congaree Swamp is this superlative example; enactment of H.R. 11891 will bring this great forest community the permanent protection it deserves.

#### SECTION-BY-SECTION ANALYSIS

Section 1 states the purpose of the legislation to preserve the outstanding southern hardwood forest located in the Congaree River floodplain. The Congaree Swamp National Monument, consisting of an area known as the Beidler Tract with a maximum acreage of 15,200 acres, is established, and a boundary map is referenced. The Secretary is given authority to make minor boundary adjustments after notifying the appropriate Committees of the Congress.

H.R. 1570

**Public Law 94-545**  
**94th Congress**

**An Act**

To authorize the establishment of the Congaree Swamp National Monument in the State of South Carolina, and for other purposes.

Oct. 18, 1976  
[H.R. 11891]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That in order to preserve and protect for the education, inspiration, and enjoyment of present and future generations an outstanding example of a near-virgin southern hardwood forest situated in the Congaree River floodplain in Richland County, South Carolina, there is hereby established the Congaree Swamp National Monument (hereinafter referred to as the "monument"). The monument shall consist of the area within the boundary as generally depicted on the map entitled "Congaree Swamp National Monument", numbered CS-80, 001-B, and dated August 1976 (generally known as the Beidler Tract), which shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior. Following reasonable notice in writing to the Committees on Interior and Insular Affairs of the Senate and House of Representatives of his intention to do so, the Secretary of the Interior (hereinafter referred to as the "Secretary") may make minor revisions of the boundary of the monument by publication of a revised map or other boundary description in the Federal Register, but the total area may not exceed fifteen thousand, two hundred acres.

Congaree Swamp National Monument, S.C. Establishment. 16 USC 431 note.

Notice to congressional committees. Publication in Federal Register.

SEC. 2. (a) Within the monument the Secretary is authorized to acquire lands, waters, and interests therein by donation, purchase with donated or appropriated funds, or exchange. Any lands or interests therein owned by the State of South Carolina or any political subdivision thereof may be acquired only by donation.

Land acquisition. 16 USC 431 note.

(b) With respect to any lands acquired under the provisions of this Act which at the time of acquisition are leased for hunting purposes, such acquisition shall permit the continued exercise of such lease in accordance with its provisions for its unexpired term, or for a period of five years, whichever is less: *Provided*, That no provision of such lease may be exercised which, in the opinion of the Secretary, is incompatible with the preservation objectives of this Act, or which is inconsistent with applicable Federal and State game laws, whichever is more restrictive.

SEC. 3. (a) The Secretary shall administer property acquired for the monument in accordance with the Act of August 25, 1916 (39 Stat. 535), as amended and supplemented, and the provisions of this Act.

Administration. 16 USC 431 note.

(b) The Secretary shall permit sport fishing on lands and waters under his jurisdiction within the monument in accordance with applicable Federal and State laws, except that he may designate zones where and establish periods when no fishing shall be permitted for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment. Except in emergencies, any regulations promulgated under this subsection shall be placed in effect only after consultation with the appropriate fish and game agency of the State of South Carolina.

Sport fishing.

SEC. 4. Within three years from the effective date of this Act, the Secretary shall review the area within the monument and shall report to the President, in accordance with subsections 3(c) and 3(d) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132 (c) and (d)), his recommendation as to the suitability or nonsuitability of any area within the monument for preservation as wilderness, and any designation of any such area as wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

Report to President. 16 USC 431 note.

## Calendar No. 865

100TH CONGRESS }  
2d Session

SENATE

{ REPORT  
100-449CONGAREE SWAMP NATIONAL MONUMENT EXPANSION  
AND WILDERNESS ACT

AUGUST 5, 1988.—Ordered to be printed

Mr. JOHNSTON, from the Committee on Energy and Natural  
Resources, submitted the following

## REPORT

[To accompany S. 2018]

## PURPOSE OF THE MEASURE

The purposes of S. 2018, as ordered reported, are to expand the boundaries of the Congaree Swamp National Monument, to designate certain lands therein as wilderness, and to increase the amount authorized to be appropriated for development within the monument.

## BACKGROUND AND NEED

The Congaree Swamp contains the largest remnant of old-growth southern bottomland hardwood forest in the United States. In 1974, the Department of the Interior designated approximately 20,000

## 3

acres of the swamp as a National Natural Landmark. In 1976, the Congress designated 15,135 acres of the landmark as the Congaree Swamp National Monument. Most recently, in 1983, the monument was included in UNESCO's international network of Biosphere Reserves and has been nominated as a World Heritage Site.

When the Congress established the monument in 1976, it realized that the inclusion of the approximately 15,000 acre "Beidler tract" alone would probably not be sufficient to protect the resource. In recognition of this fact, the Congress directed the Park Service to:

Identify the land and interests in land adjacent or related to the monument which are deemed necessary or desirable for the purposes of resource protection, scenic integrity, or management and administration of the area in furtherance of the purposes of this Act \* \* \*.

102 STAT. 2606

PUBLIC LAW 100-524—OCT. 24, 1988

Public Law 100-524  
100th Congress

An Act

Oct. 24, 1988  
[S. 2018]

To expand the boundaries of the Congaree Swamp National Monument, to designate wilderness therein, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

Congaree  
Swamp  
National  
Monument  
Expansion and  
Wilderness Act.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Congaree Swamp National Monument Expansion and Wilderness Act".

SEC. 2. NATIONAL MONUMENT WILDERNESS.

National  
Wilderness  
Preservation  
System.  
16 USC 1132  
note.

(a) DESIGNATION OF WILDERNESS.—Certain lands comprising approximately 15,010 acres as generally depicted on a map entitled "Congaree Swamp National Monument Wilderness—Proposed", and dated July 1988, are hereby designated as wilderness and therefore as components of the National Wilderness Preservation System. Such lands shall be known as the Congaree Swamp National Monument Wilderness.

(b) POTENTIAL WILDERNESS ADDITIONS.—Certain lands comprising approximately 6,840 acres as depicted on the map referenced in subsection (a) are hereby designated as potential wilderness additions. Such lands shall be managed by the Secretary of the Interior (hereinafter referred to as the "Secretary") insofar as practicable as wilderness until such time as said lands are designated as wilderness. Any lands designated as potential wilderness additions shall, upon acquisition of any non-Federal interests in land and publication in the Federal Register of a notice by the Secretary that all uses thereon prohibited by the Wilderness Act have ceased, thereby be designated wilderness, shall be part of the Congaree Swamp National Monument Wilderness, and shall be managed in accordance with the Wilderness Act.

SEC. 3. MAP AND LEGAL DESCRIPTION.

Public  
information.

As soon as practicable after the date of enactment of this Act, the map referenced in section 2 and a legal description of the boundaries of the wilderness and potential wilderness addition designated by this Act shall be on file and available for public inspection in the Office of the Director of the National Park Service, Department of the Interior, in the Office of the Superintendent of the Congaree Swamp National Monument and with the Committee on Interior and Insular Affairs of the United States House of Representatives and the Committee on Energy and Natural Resources of the United States Senate. Each such map and legal description shall have the same force and effect as if included in this Act, except that correction of clerical and typographical errors in such map and legal description may be made.

117 STAT. 1270

PUBLIC LAW 108-108—NOV. 10, 2003

SEC. 134. The State of Utah's contribution requirement pursuant to Public Law 105-363 shall be deemed to have been satisfied and within thirty days of enactment of this Act, the Secretary of the Interior shall transfer to the State of Utah all right, title, and interest of the United States in and to the Wilcox Ranch lands acquired under section 2(b) of Public Law 105-363, for management by the Utah Division of Wildlife Resources for wildlife habitat and public access to the Ranch as well as to adjacent lands managed by the Bureau of Land Management.

SEC. 135. Upon enactment of this Act, the Congaree Swamp National Monument shall be designated the Congaree National Park.

SEC. 136. (a) Section 122 of division F of Public Law 108-7 is amended as follows:

(1) Paragraph 122(a)(4) is amended to read—

“(4) TRIBALLY CONTROLLED SCHOOL.—The term ‘tribally controlled school’ means a school that currently receives a grant under the Tribally Controlled Schools Act of 1988, as amended (25 U.S.C. 2501 et seq.) or is determined by the Secretary to meet the eligibility criteria of section 5205 of the Tribally Controlled Schools Act of 1988, as amended (25 U.S.C. 2504).”.

(2) Paragraph 122(b)(1) is amended by striking the second sentence and inserting: “The Secretary shall ensure that applications for funding to replace schools currently receiving funding for facility operation and maintenance from the Bureau of Indian Affairs receive the highest priority for grants under this section. Among such applications, the Secretary shall give priority to applications of Indian tribes that agree to fund all future facility operation and maintenance costs of the tribally controlled school funded under the demonstration program from other than Federal funds.”.

(3) Subsection (c) is amended by inserting after “EFFECT OF GRANT.—” the following: “(1) Except as provided in paragraph (2) of this subsection,” and is further amended by adding the following new paragraph:

“(2) A tribe receiving a grant for construction of a tribally controlled school under this section shall not be eligible to receive funding from the Bureau of Indian Affairs for that school for education operations or facility operation and maintenance if the school that was not at the time of the grant: (i) a school receiving funding for education operations or facility operation and maintenance under the Tribally Controlled Schools Act or the Indian Self-Determination and Education Assistance Act or (ii) a school operated by the Bureau of Indian Affairs.”.

(b) Notwithstanding the provisions of paragraph (b)(1) of section 122 of division F of Public Law 108-7, as amended by this Act, the Saginaw-Chippewa tribal school and the Redwater Elementary School shall receive priority for funding available in fiscal year 2004. The Saginaw-Chippewa tribal school shall receive \$3,000,000 from prior year funds, and the Redwater Elementary School shall receive \$6,000,000 available in fiscal year 2004.

SEC. 137. The Secretary shall have no more than 180 days from October 1, 2003, to prepare and submit to the Congress, in a manner otherwise consistent with the Indian Tribal Judgment Funds Use or Distribution Act (25 U.S.C. 1401 et seq.), plans

Congaree National Park designation. 16 USC 410jj note.

25 USC 2501 note.

Deadline.

the size of the lettering or design identifying the special event. In approving special events, the Secretary shall ensure, to the maximum extent practicable, that public use of, and access to the Mall is not restricted. For purposes of this section, the term “special event” shall have the meaning given to it by section 7.96(g)(1)(ii) of title 36, Code of Federal Regulations.

SEC. 146. In addition to amounts provided to the Department of the Interior in this Act, \$5,000,000 is provided for a grant to Kendall County, Illinois.

SEC. 147. CONVEYANCE TO THE CITY OF LAS VEGAS, NEVADA. Section 705(b) of the Clark County Conservation of Public Land and Natural Resources Act of 2002 (116 Stat. 2015) is amended by inserting after “map” the following: “and the approximately 10 acres of land in Clark County, Nevada, described as the NW¼ SE¼ SW¼ of section 28, T. 20 S., R. 60 E., Mount Diablo Base and Meridian”.

SEC. 148. CONGAREE SWAMP NATIONAL MONUMENT BOUNDARY REVISION. The first section of Public Law 94-545 (90 Stat. 2517; 102 Stat. 2607) is amended—

- (1) in subsection (b), by striking the last sentence; and
- (2) by adding at the end the following:

“(c) ACQUISITION OF ADDITIONAL LAND.—

“(1) IN GENERAL.—The Secretary may acquire by donation, by purchase from a willing seller with donated or appropriated funds, by transfer, or by exchange, land or an interest in land described in paragraph (2) for inclusion in the monument.

“(2) DESCRIPTION OF LAND.—The land referred to in paragraph (1) is the approximately 4,576 acres of land adjacent to the Monument, as depicted on the map entitled “Congaree National Park Boundary Map”, numbered 178/80015, and dated August 2003.

“(3) AVAILABILITY OF MAP.—The map referred to in paragraph (2) shall be on file and available for public inspection in the appropriate offices of the National Park Service.

“(4) BOUNDARY REVISION.—On acquisition of the land or an interest in land under paragraph (1), the Secretary shall revise the boundary of the monument to reflect the acquisition.

“(5) ADMINISTRATION.—Any land acquired by the Secretary under paragraph (1) shall be administered by the Secretary as part of the monument.

“(6) EFFECT.—Nothing in this section—

“(A) affects the use of private land adjacent to the monument;

“(B) preempts the authority of the State with respect to the regulation of hunting, fishing, boating, and wildlife management on private land or water outside the boundaries of the monument; or

“(C) negatively affects the economic development of the areas surrounding the monument.

“(d) ACREAGE LIMITATION.—The total acreage of the monument shall not exceed 26,776 acres.”.

SEC. 149. Section 104 (16 U.S.C. 1374) is amended in subsection (c)(5)(D) by striking “the date of the enactment of the Marine Mammal Protection Act Amendments of 1994” and inserting “February 18, 1997”.

SEC. 150. The National Park Service shall issue a special regulation concerning continued hunting at New River Gorge National

16 USC 431 note.

Regulations.  
16 USC 460m-20  
note.

SEC. 136. (a) The National Flood Insurance Act of 1968 is amended—

(1) in section 1319 (42 U.S.C. 4026), by striking “December 31, 2003” and inserting “June 30, 2004.”;

(2) in the first sentence of section 1309(a) (42 U.S.C. 4016(a)), by striking “December 31, 2003” and inserting “the date specified in section 1319”;

(3) in section 1336(a) (42 U.S.C. 4056(a)), by striking “December 31, 2003” and inserting “on the date specified in section 1319”; and

(4) in section 1376(c) (42 U.S.C. 4127(c)), by striking “December 31, 2003” and inserting “the date specified in section 1319”.

(b) The amendments made by this section shall be considered to have taken effect on December 31, 2003.

SEC. 137. (a) Section 441(c) of the Maritime Transportation Security Act of 2002 (Public Law 107-295) is amended—

(1) by striking “and that is not the subject of an action prior to June 20, 2002, alleging a breach of subsections (a) and (b) of section 10601 as in effect on such date,”; and

(2) by striking “such subsections” and inserting “subsections (a) and (b) of section 10601 of title 46, United States Code, as in effect prior to November 25, 2002”.

(b) The amendments made by subsection (a) apply to all proceedings pending on or commenced after the date of enactment of this Act.

SEC. 138. Public Law 108-108 is amended under the heading “Bureau of Indian Affairs, Construction” by striking “25 U.S.C. 2005(a)” and inserting “25 U.S.C. 2005(b)” and by striking “25 U.S.C. 2505(f)” and inserting “25 U.S.C. 2504(f)”.

SEC. 139. CONGAREE NATIONAL PARK BOUNDARY REVISION. (a) IN GENERAL.—Subsection (c) of the first section of Public Law 94-545 (90 Stat. 2517; 102 Stat. 2607) is amended by striking paragraph (6) and inserting the following:

“(6) EFFECT.—Nothing in this section—

“(A) affects the use of private land adjacent to the park;

“(B) preempts the authority of the State with respect to the regulation of hunting, fishing, boating, and wildlife management on private land or water outside the boundaries of the park;

“(C) shall negatively affect the economic development of the areas surrounding the park; or

“(D) affects the classification of the park under section 162 of the Clean Air Act (42 U.S.C. 7472).”.

(b) DESIGNATION OF CONGAREE NATIONAL PARK WILDERNESS.—

(1) DESIGNATION.—The wilderness established by section 2(a) of the Congaree Swamp National Monument Expansion and Wilderness Act (102 Stat. 2606) and known as the “Congaree Swamp National Monument Wilderness” shall be known and designated as the “Congaree National Park Wilderness”.

(2) REFERENCES.—Any reference in a law, map, regulation, document, paper, or other record of the United States to the wilderness referred to in paragraph (1) shall be deemed to be a reference to the “Congaree National Park Wilderness”.

SEC. 140. Section 123 of the Department of the Interior and Related Agencies Appropriations Act, 2004 (Public Law 108-108),

Effective date.  
46 USC 4016  
note.  
46 USC 10601  
note.

Applicability.  
42 USC 10601  
note.

16 USC 410jij.

16 USC 1132  
note.

117 Stat. 1268.

## Appendix B: Administrative Commitments

Name	Agreement Type	Start Date / Expiration Date	Stakeholders	Purpose	Notes
South Carolina Forestry Commission – NPS, USFWS, USFS Wildland Fire Memorandum	Memorandum of Understanding and Annual Operating Plan	2008 / Ongoing	Congaree National Park and South Carolina Forestry Commission	Mutual resource support for wildland fire. It allows collaborative resource use.	Renewed annually.
Cooperative law enforcement agreement with Richland County, South Carolina (AGREEMENT #NPS-5240-2009-01)	General Agreement	May 18, 2010 / Ongoing	Congaree National Park and Richland County, SC	Mutual resource support for law enforcement.	Renewed annually.
Fire management agreement	General Agreement	Unknown / Ongoing	Congaree National Park and Columbia Fire Department	Mutual assistance in wildland and structural fire suppression actions on lands within Congaree National Park's boundaries and within Richland County, SC.	Renewed annually.(Note: Agreement has lapsed, but will be renewed as the new FMP is developed.)
Feral hog management	Interagency Agreement with USDA, APHIS Wildlife Services	2008 / 2013 (subject to renewal)	NPS and USDA, APHIS Wildlife Services	Assistance with feral hog management.	Agreement is dependent on availability of funding from the NPS.
Permit to operate a public water supply	Permit	January 6, 2000 (visitor center) and May 1991 (research and education center) / None	Congaree National Park and South Carolina Department of Health and Environmental Control	Assure healthful water supply to visitors and NPS staff.	Two permits: one for the visitor center and one for the research and education center (former ranger station).
Agreement with Eastern National	National Cooperating Agreement with NPS	19?? / Ongoing	Eastern National	Provide educational and monetary support for the park; provide educational materials for retail sale to the visitor.	
NOAA agreement	Memorandum of Understanding	2012 / Ongoing, but presently lapsed	NOAA, USGS, Richland County residents	Stream gage on Congaree River will be maintained by USGS for use by NOAA in predicting flooding and offering flood warnings.	Renewal cycle is five years, subject to the availability of funding.

Name	Agreement Type	Start Date / Expiration Date	Stakeholders	Purpose	Notes
SC Wild Hog Task Force	Memorandum of Understanding	2012 / Ongoing	SC Dept. of Natural Resources; Clemson University Livestock / Poultry Health Programs; SC Dept. of Health and Environmental Control; SC Dept. of Agriculture; Clemson University College of Agriculture, Forestry and Life Sciences; U.S. Dept. of the Interior – National Park Service – Southeast Region; U.S. Dept. of the Interior –United States Fish and Wildlife Service – Southeast Region; Savannah River National Laboratory – Savannah River Nuclear Solutions, LLC; and South Carolina Farm Bureau	The MOU creates a task force to provide active planning, cooperation, collaboration, and coordination in investigation, surveillance, educational efforts, and actions related to wild hog management.	MOU is periodically reviewed. Remains in force until terminated.
USGS Stage Gage	Interagency Agreement	1981(?) / Ongoing, but presently lapsed.	Visitors, researchers, all divisions within CONG, U.S. Geological Survey	Both gages covered by this agreement have been integral to park research, management, and operations for many years. Real-time data are frequently used in-house for interpretation, enforcement, and maintenance activities. Continued support of these gages is critical for continued research, management, and operations in several dimensions. NOAA flood prediction is tied to Congaree River gage.	Agreement with USGS has lapsed due to budget considerations. Friends of Congaree Swamp has taken over responsibility for the agreement covering the Cedar Creek gage.
Cooperative EMS agreement with Richland County	Memorandum of Understanding (under development)	Pending	NPS, RCEMS	Cooperative agreement for providing emergency medical assistance.	In development.
NPS-5240-2011-001 with Dr. William Gerard	Memorandum of Understanding	9/19/2011 / 9/19/2016	NPS, Dr. Gerard	Medical advisor memorandum of understanding; automated external defibrillator memorandum of understanding	

Name	Agreement Type	Start Date / Expiration Date	Stakeholders	Purpose	Notes
Wetland of International Importance updates	Convention on Wetlands of International Importance (Ramsar Convention)	5/30/2012 / None	Visitors, researchers, all divisions within CONG	Identify protected wetlands at CONG	Ramsar Convention requires site information to be updated every time a significant change occurs at CONG, and at intervals of not more than six years.
12,000 Year History Park Partnership	Memorandum of Understanding	6/11/2014 / 6/11/2019	NPS, City of Cayce, River Alliance	To facilitate preservation, protection, and interpretation of the unique cultural and environmental legacy of the 12,000 Year History Park (12KHP) along the Congaree Creek	NPS to provide limited staff time and planning support for initial establishment and operation of the new park.



# Appendix C: Basics for Wilderness Stewardship

## Wilderness Background Information

The basic wilderness information section establishes a common understanding of the park unit's wilderness status, boundaries, and legislative history.

### History of Land Status and Legislation

The Wilderness Act, signed into law in 1964, created the National Wilderness Preservation System to ensure an enduring resource of wilderness for future generations. The act provides that wilderness areas are to possess the following characteristics:

- The earth and its community of life are untrammelled by humans, where humans are visitors and do not remain.
- The area is undeveloped and retains its primeval character and influence without permanent improvements or human habitation.
- The area generally appears to have been affected primarily by the forces of nature, with the imprint of humans' work substantially unnoticeable.
- The area is protected and managed so as to preserve its natural conditions.
- The area offers outstanding opportunities for solitude or a primitive and unconfined type of recreation.

The Congaree Swamp National Monument Expansion and Wilderness Act (Public Law 100-524 (October 24, 1988)), as amended by P.L. 108-199 (January 23, 2004), established the Congaree National Park Wilderness as a component of the National Wilderness Preservation System. The 1988 legislation designated approximately 15,010 acres of the park as wilderness and an additional 6,840 acres as potential wilderness, for a total of approximately 21,850 acres. The park as a whole covers 26,546 acres.

The term designated wilderness refers to those lands and waters within the wilderness boundary that are under full federal ownership and management and are free of uses prohibited by the Wilderness Act. In contrast, potential wilderness at the park consists of (a) inholdings not yet acquired by the National Park Service, or (b) areas where nonconforming uses continue to exist.



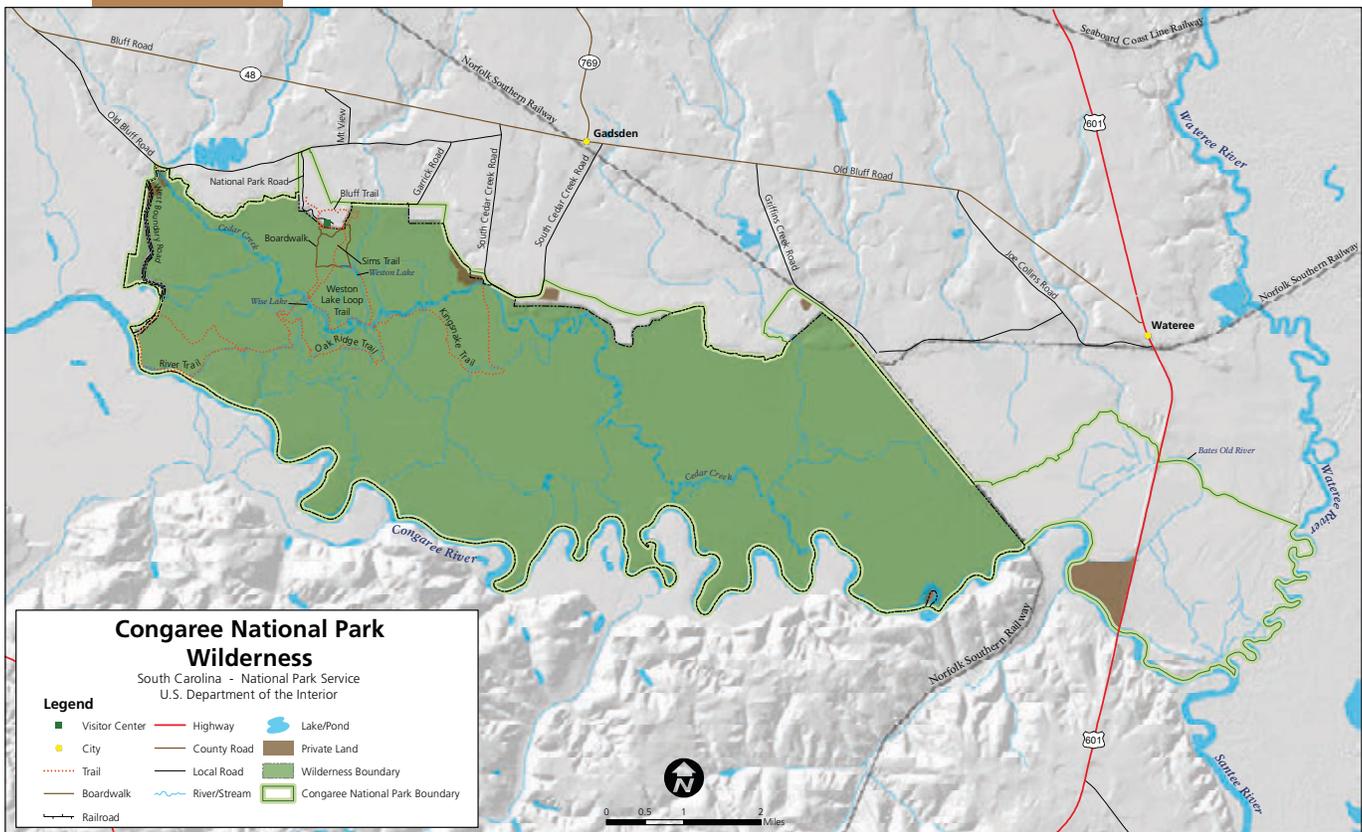
## Current Land Status, Boundary Descriptions, and Map

In 2014, the park converted approximately 6,690 acres of potential wilderness to designated wilderness. As a result, approximately 21,700 acres of the park are now managed as designated wilderness and 150 acres as potential wilderness. The 21,700 acres of designated wilderness represent approximately 82% of the land within the park's authorized boundary. In the future, as nonconforming uses cease, or as lands come into federal ownership, the National Park Service will convert additional potential wilderness to designated wilderness via a notice in the *Federal Register*.

The Congaree National Park Wilderness includes almost all of the floodplain west of the Norfolk Southern rail line, together with limited areas of upland on the northern bluff. The wilderness boundary excludes a narrow corridor on either side of the western boundary road, as well as two small areas at Bannister Bridge and South Cedar Creek Road that have been developed for primitive visitor use facilities. Also excluded is an upland area actively managed as habitat for the endangered red-cockaded woodpecker.

The Wilderness Act of 1964 mandated that the Secretary of the Interior examine existing roadless areas larger than 5,000 acres within national park units and suggest those that should be included in the National Wilderness Preservation System. By policy, the National Park Service continues to perform wilderness eligibility assessments on all new lands added to the national park system. For those lands found eligible for wilderness designation, a subsequent wilderness study is done to decide which lands should be included in a formal wilderness proposal. Congaree National Park presently includes 4,576 acres of backcountry that were added to the park boundary in 2003, but have not yet been assessed for wilderness eligibility. Should any of these lands be found eligible, a wilderness study will need to be done to identify which lands, if any, should be proposed for addition to the Congaree National Park Wilderness.

By law, the Congaree National Park Wilderness is to be permanently preserved in its wilderness state. A map of the wilderness is provided below.



Produced by Denver Service Center Planning Division. July 2014.

## Wilderness Character Narrative

### Introduction

A wilderness character narrative is intended to be a qualitative description and positive affirmation of the unique attributes of a wilderness area. Representatives from each of the four wilderness managing agencies developed a national framework to monitor wilderness character using five qualities: natural, untrammeled, undeveloped, opportunities for solitude or primitive and unconfined recreation, and other features. These qualities are defined in brief as follows:

- **Natural:** Wilderness maintains ecological systems that are substantially free from the effects of modern civilization.
- **Undeveloped:** Wilderness retains its primeval character and influence, and is essentially without permanent improvements or modern human occupation.
- **Untrammeled:** Wilderness is essentially unhindered and free from modern human control or manipulation.
- **Solitude or Primitive and Unconfined Recreation:** Wilderness provides outstanding opportunities for solitude or a primitive and unconfined type of recreation.

The National Park Service has defined a fifth quality, “other features,” to capture elements that aren’t included in the other four qualities—other ecological, geological, or other features of scientific, educational, scenic or historical value. This quality, if present, is unique to an individual wilderness based on the features that are inside that wilderness. These features typically occur only in specific locations within a wilderness.

The following wilderness character narrative is intended to familiarize readers with the tangible and intangible resources and values that combine to create the Congaree National Park Wilderness. The document was created through collaboration by NPS staff and is a record of the shared understanding of wilderness character exemplified by Congaree National Park.

This narrative serves as a framework for a wilderness stewardship plan, fosters integration among different staff and program areas that need to function together to effectively preserve wilderness character, and serves as a starting point for discussion with the public about the current and future state of the wilderness. Other more analytical documents, such as wilderness character baseline and wilderness character monitoring measures, may be derived from the qualitative description and threats to wilderness character identified by this wilderness character narrative.



## Overview of Congaree National Park Wilderness

Congaree National Park is located in central South Carolina, on the banks of the Congaree and Wateree rivers. Originally established in 1976 as Congaree Swamp National Monument, the park was created to protect the largest contiguous stand of Southern old-growth bottomland forest in the nation. The park currently comprises 26,546 acres, of which approximately 21,700 acres are designated wilderness and 150 acres are potential wilderness. Virtually all of the park's approximately 11,000 acres of old growth forest are in designated wilderness. The old growth is augmented by thousands of acres of second-growth forest, which enhances the diversity of the wilderness as a whole. A number of second-growth areas are former old-growth forest that were selectively logged and/or clear-cut in the early- to mid-1970s, prior to acquisition by the National Park Service. Others, including the more elevated parts of the eastern end of the wilderness, were largely clear-cut during the 1980s. The logged portions of the wilderness are now recovering rapidly due to nutrient-rich soils and an ample supply of moisture in the floodplain.

The Congaree National Park Wilderness is open to visitation year round. Because the wilderness boundary extends up to the edge of the northern bluff, including the area immediately adjacent to the visitor center, almost all park visitors end up experiencing designated wilderness. Most visitors spend the bulk of their time on the low and elevated boardwalks. Peak visitation is during spring (March–May).

Visitor use of the wilderness consists primarily of walking on the boardwalk, day-hiking, paddling, and backpacking. Heaviest visitation to the wilderness occurs during the spring and fall. Away from the boardwalk system, visitation is generally light, and substantial opportunities exist for solitude.

## Natural Quality

**Definition: Wilderness maintains ecological systems that are substantially free from the effects of modern civilization.**

Lying at the heart of the Congaree National Park Wilderness are 11,000 acres of old growth bottomland forest. This old-growth core contains many big and tall trees of various species, including some that are national and state champions. The presence of big trees indicates that humans have not disturbed this part of the wilderness in many decades. Big trees also point to the forest's relative ecological integrity. Most of the park's big trees are early- to mid-successional species that generated in the wake of strong winds, flooding, or other disturbance. When large trees fall, as they frequently do in the floodplain, they create the patchy conditions necessary to maintain species diversity. The high species diversity of Congaree' old growth forest is characteristic of a naturally functioning Southern bottomland ecosystem.

The composition of the forest is shaped in large part by overbank flooding from the Congaree and Wateree rivers. Periodic flooding provides the nutrients and energy that drive the floodplain ecosystem. In particular, the timing, duration, and extent of flooding are among the principal factors determining the vegetative composition of the bottomland forest. Although affected by upstream dams and water withdrawals, the Congaree's flooding regime is more intact than that of many other Southern rivers. As a result, natural communities and processes in the park have not experienced the same degree of change witnessed along other, more hydrologically modified Southern rivers. Water quality in the wilderness is generally good for most of the year. The stretch of Cedar Creek below Wise Lake has been designated an Outstanding National Resource Water by the State of South Carolina.



Congaree's floodplain and upland forests comprise one of the more floristically diverse areas in the Middle Atlantic Coastal Plain. Twenty-two vegetation associations occur within the floodplain and contiguous bluff. Some upland areas in the wilderness support a small tract of the rare longleaf pine (*Pinus palustris*) forest, which once was ubiquitous across the Southeastern United States. Congaree may be the last area in the nation where a surviving longleaf pine forest exists in close proximity to an extensive tract of old growth bottomland forest.

The wilderness is no longer home to such top level predators as panther and red wolf, but it still harbors a number of rare species and provides essential habitat for plant and animal species that rely on old growth bottomland hardwoods. Rare species include the Rafinesque big-eared bat, Southeastern myotis, bald eagle, wood stork, swallow-tailed kite, and spotted turtle. At least 16 species of rare plants occur in the park, including the largest extant population of the Carolina bogmint (*Macbridea caroliniana*).

The park is particularly valuable as resting and breeding habitat for Neotropical migratory songbirds, and also harbors large numbers of over-wintering birds. Unlike many second-growth forests, the old growth at Congaree has large amounts of dead, dying, and downed wood, allowing it to support all of the confirmed woodpecker species in the Mid-Atlantic Coastal Plain except for the red-cockaded woodpecker, which has not been confirmed in the park since the 1990s. Cavities created by woodpeckers in turn provide habitat for numerous species of cavity-nesting birds and mammals.

While natural processes generally prevail within the Congaree National Park Wilderness, human activities have altered some aspects of the area's natural character. Parts of the wilderness, including some areas in the old-growth core, were selectively cut or clear-cut before being added to the park. It will be decades before these areas exhibit the natural age and structural diversity characteristic of old-growth forests. Along the northern bluff line, today's vegetation communities reflect past agricultural practices and the subsequent exclusion of wildland fire. Other parts of the wilderness are threatened by the spread of nonnative species, especially feral hogs and various species of invasive plants. The rooting behavior of feral pigs, in particular, affects natural successional processes and vegetative patterns. Feral hog management has regulated numbers to a limited extent, but has been unsuccessful so far in reducing population to acceptable levels. Nonnative plant management teams and park staff have worked to remove invasive nonnatives, but the rich floodplain environment continues to facilitate the spread of established nonnatives, such as privet (*Ligustrum spp.*) and Japanese stilt grass (*Microstegium vimineum*). New nonnatives continue to be discovered.

Additional impacts on the natural quality of wilderness include those brought on by climate change and by modified land use in surrounding watersheds. Over the coming decades, these changes could result in further alterations of the park's hydrology as well as increased periods of drought, resulting in shifts in the park's vegetative and other biotic communities. Upstream land-use changes may also increase the amount of sediment, pollutants, and trash washed into the park during floods.

## Untrammeled

Definition: Wilderness is essentially unhindered and free from modern human control or manipulation. This quality represents the “wild,” in “wilderness.” Any intentional or unintentional, authorized or unauthorized treatment or action that manipulates the wilderness degrades this quality. Perpetuating the untrammeled quality requires managers to restrain themselves, rather than restraining the wilderness. Often, upholding the untrammeled quality can detract from another wilderness quality, such as “naturalness,” or vice-versa. For example, nonnative species may be removed in order to attain natural species composition, which would in turn be a manipulation of the current wilderness.

The Congaree National Park Wilderness is subject to relatively little active manipulation within its borders. Most manipulation involves short term management actions intended to improve the natural quality of wilderness character.

By its very nature, the Congaree floodplain is a dynamic environment, shaped in large part by flooding and wind disturbance. Substrates shift constantly due to such factors as flood scouring, sediment deposition, and stream migration, forcing species to colonize land forms that are continuously changing in shape and elevation. This diversity of physical gradients is attended by periodic disturbances to the vegetative canopy by hurricanes and other wind events. The interaction of flooding and wind storms produces a constantly changing mosaic of disturbed areas, each containing vegetation of different ages and varying species composition. This disturbance regime, and the biological systems it supports, still operate more or less unhindered within the Congaree wilderness. While hydrology is not actively manipulated within the wilderness itself, it continues to be influenced by dams and other upstream development. Moreover, the wilderness as a whole is affected by changes brought on by the forces of global climate change.

Management actions taken to improve the natural quality of wilderness character include removing nonnative plants and animals, igniting prescribed fires, monitoring and protecting special status species, and placing installations for scientific research. These activities, though they degrade the untrammeled quality of wilderness, are authorized by NPS policy, and are only taken when determined necessary for the administration and preservation of the wilderness resource.

Other management activities that affect the untrammeled quality include clearing the Cedar Creek canoe trail of fallen trees and removing limbs and tree trunks from the park trail system. Occasionally these activities involve the use of motorized vehicles to reach work sites and transport equipment. The use of off-road vehicles generates noise and can result in compaction of soft floodplain soils. Off-road vehicle use is governed by a minimum requirements determination signed by the park superintendent.

Natural processes are trammled in some places by existing development. In particular, some old roadbeds and abandoned agricultural features (e.g., dikes, ditches) have altered the hydrology of localized areas. Examples include the western boundary road, the Northwest Boundary Dike, the Sims Trail, and various old jeep and logging roads. Culverts and bridges exist on many old roadbeds, but they do not necessarily offset the impact that raised roadbeds have on sheetflow. Some bridges on park trails catch enough woody debris that they end up partially damming streams.

More trammeling of the wilderness is likely in the future due to continuing park management operations in wilderness, and to forces at work outside the park. New upstream impoundments are possible in the years ahead, especially if droughts worsen due to climate change. Increased development in surrounding watersheds could introduce additional pollutants and change the quantity and timing of water entering the park.

## Undeveloped

Definition: Wilderness retains its primeval character and influence, and is essentially without permanent improvements or modern human occupation.

Most of the Congaree National Park Wilderness is entirely undeveloped. Despite a long history of farming and grazing along the river and on the higher floodplain ridges, most evidence of past agricultural activities has long since vanished. Today, only residual historic development exists within the wilderness boundary. Remnant structures include a handful of so-called “cattle mounds,” built as refugia for cattle during floods, and a small number of historic dikes. Most of these structures are listed in the National Register of Historic Places. Their condition is only fair, due to the impacts of flooding and rooting by feral pigs.

The Congaree National Park Wilderness contains a system of hiking trails, but all of the trails are located in the western end of the park. Most of the wilderness is accessible only by paddling or off-trail exploration. The entire wilderness is heavily forested, and views from within the wilderness are rarely interrupted by sightings of development outside it. Over much of its area, the Congaree wilderness retains its primeval character and influence.

In places the undeveloped quality of the wilderness is degraded by structures built to facilitate visitor use and scientific research. These include a boardwalk system, some fairly elaborate backcountry trail bridges, long-term scientific monitoring equipment, hog traps, plot markers (tree tagging, etc.), and trail signage. The boardwalks and trail bridges are the most obvious developments in the wilderness. Their purpose is to allow people to visit the floodplain’s swampy terrain safely, while minimizing resource impacts. The bridges are noteworthy for being wider and more robust than is typical in most wilderness areas. They are built this way primarily to survive frequent flooding. Many visitors to the Congaree National Park Wilderness are from nearby metropolitan areas and lack strong wilderness navigation skills. The park makes every effort to ensure that scientific installations and equipment are removed from the wilderness when projects are complete. Before the National Park Service will approve a research project or request for scientific installation in wilderness, the requesting party must execute contract(s) and obtain relevant permits to ensure that all project management tasks and time constraints are defined and acceptable to the National Park Service, and that parties responsible for project tasks are clearly defined.

From time to time, the undeveloped quality is degraded by human-caused sounds intruding from outside the wilderness. Motorboats can be heard by persons within earshot of the Congaree River, and trains pass frequently on the Norfolk Southern rail line. Aircraft overflights, sometimes low and quite loud, regularly disturb the wilderness soundscape. The undeveloped quality is also degraded by the authorized use of off-road vehicles and mechanized equipment (e.g., chainsaws, etc.) by park personnel. Such usage occurs either during emergency incidents or is authorized via a minimum requirements analysis as the minimum tool to implement planned management activities. Off-road vehicle use can introduce noise, fumes, and visual intrusions to the wilderness. The tracks of these vehicles can be seen even when the vehicles themselves cannot.

Those portions of the park originally designated potential wilderness often came into NPS ownership with tree stands, garbage dumps, equipment sheds, and other similar development. In recent years, removal of structures and debris by park maintenance staff has substantially improved the undeveloped character of these lands.

## Opportunities for Solitude or Primitive and Unconfined Recreation

Definition: Wilderness provides outstanding opportunities for solitude or a primitive and unconfined type of recreation. This quality is primarily about the opportunity for people to experience wilderness, and is influenced by settings that affect these opportunities.

The remoteness and lack of development at Congaree allow ample opportunity for unconfined recreation. In fact, a principal attraction of the wilderness for many visitors is the chance to experience solitude, risk, and challenge. Large parts of the wilderness are long distances from any trail or defined access point, and there are no designated campsites. The heavily forested and swampy terrain can be difficult to traverse even during periods of low water, and the lack of prominent landmarks makes navigation a challenge, especially in the summer months. The result is that large parts of the wilderness are visited only by the most determined hikers and backpackers. Camping in the wilderness requires a permit, but no reservations are required. Campfires are not allowed.

A somewhat easier way to see some of the more remote parts of the wilderness is to paddle Cedar Creek. The creek passes through wilderness its entire length from Bannister Bridge to the Congaree River. Paddling is not without its own challenges, however, as trees frequently fall into the creek, necessitating portages. A marked canoe trail allows paddlers to monitor their progress and stay on the main branch of the creek. Paddling Cedar Creek is a popular activity, but opportunities for solitude increase the farther one goes from the put-in points at Bannister Bridge and South Cedar Creek Road. Recently, opportunities for solitude have improved along Cedar Creek due to changes in camping regulations. Camping is now prohibited within 100 feet of the north side of Cedar Creek between Bannister Bridge on the west and South Cedar Creek canoe access on the east.

The western part of the wilderness is served by a developed trail system. Below the visitor center, trails extend outward into the floodplain from the elevated and low boardwalks. The trails allow visitors to experience the deep forest of the wilderness, without the worry of becoming lost. Visitation is highest in this part of the wilderness, but hikers often have the trail to themselves.

Opportunities for solitude at Congaree are degraded principally by human-caused noise. The sound of boat traffic on the Congaree River and vehicles on Old Bluff Road can be heard some distance into the wilderness. Even in the heart of the floodplain, noise intrudes from the Norfolk Southern rail line and from periodic aircraft overflights. Low-level military overflights have been a persistent issue since before the wilderness was established in 1988. The unlawful use of bicycles on trails also impinges on feelings of solitude.

## Other Features

Definition: This quality covers those values and features that are not fully covered in the other four qualities, including ecological, geological, scientific, educational, scenic, or historical value. This feature is unique to an individual wilderness based on the features that are inside that wilderness.

The floodplain of the Congaree River has supported human communities for thousands of years, and remnant cultural features in the Congaree National Park Wilderness reflect the evolving agricultural, commercial, and social practices of people throughout the South Atlantic Coastal Plain. Representative cultural features in the wilderness include old agricultural field sites near the river and earthen mounds and embankments built to protect cattle and crops from flooding.

The Congaree National Park Wilderness protects a variety of archeological and historical resources, but the cattle mounds and dikes are particularly important. The majority of these appear to have been built by slaves before the Civil War. Besides being emblematic of the many adaptations people have made over time to wrest a living from the floodplain, the mounds and dikes also reveal the long-standing ties of local residents to the wilderness. African Americans, in particular, made extensive use of the floodplain, both before the Civil War, when the swamp was a place of work, subsistence, and refuge, and after, when some individuals acquired land or worked as tenants in what is now designated wilderness.

The condition of the archeological resources and earthen structures in the wilderness is generally fair to good. However, the integrity of these resources has been compromised by erosion from periodic floods and rooting by feral hogs. Erosion and feral hog rooting are slowly wearing away earthen structures and may be affecting the integrity of archeological sites.

## Issues for Wilderness Planning

Please see the previous discussion of key park issues in “Identification of Key Issues and Associated Planning and Data Needs.” Because the park is more than 80% wilderness, many of the key issues facing the park also relate to the Congaree National Park Wilderness. The foundation document includes a detailed assessment of planning and data needs prepared by the Southeast Region and Congaree National Park.





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## Southeast Region Foundation Document Recommendation Congaree National Park

September 2014

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



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RECOMMENDED 9-22-14  
Tracy Stakely, Superintendent, Congaree National Park Date



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APPROVED 10/1/14  
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.

## Foundation Document • Congaree National Park

