



**Appendix A** Park Enabling Legislation and Mandates .....A-1  
**Appendix B** Applicable Federal and State of West Virginia Laws  
and Regulations and National Park Service Policies.....B-1  
**Appendix C** Compliance Coordination.....C-1  
**Appendix D** Wilderness Eligibility Assessment.....D-1  
**Appendix E** Boundary Adjustment Study.....E-1  
**Appendix F** Affected Environment Data Tables .....F-1  
**References**  
**Acronyms**  
**Preparers**  
**Glossary**  
**Index**

## Appendices



*Hiking alone in winter – experiencing solitude.*



***New River  
Gorge National  
River affords  
exceptional  
opportunities  
for exploration,  
adventure,  
discovery,  
solitude, and  
community.***



*Outfitted paddlers bound for adventure on the New River in the lower gorge.*

*Opposite side: Tranquil setting on the New River at dusk.*



# Appendix A Park Enabling Legislation and Mandates

## Appendix A

### Park Enabling Legislation and Mandates

- **Public Law 95-625, Title XI (Stat.3544-3548, November 10, 1978)..... A-1**
- **Public Law 100-534, Section 1 (West Virginia National Interest River Conservation Act of 1987) (102 Stat. 2699-2708, October 26, 1988) ..... A-5**
- **Table A.1 New River Gorge National River – Summary of Park Legislation and Related Legislative Mandates ..... A-10**
- **Table A.2 New River Gorge National River – Other Special Mandates..... A-11**
- **Table A.3 New River Gorge National River – Special Park Designations ..... A-13**



PUBLIC LAW 95-625—NOV. 10, 1978

92 STAT. 3467

Public Law 95-625  
95th Congress

An Act

To authorize additional appropriations for the acquisition of lands and interests in lands within the Sawtooth National Recreation Area in Idaho.

Nov. 10, 1978

[S. 791]

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

National Parks  
and Recreation  
Act of 1978.

SHORT TITLE AND TABLE OF CONTENTS

SECTION 1. This Act may be cited as the "National Parks and Recreation Act of 1978". 16 USC 1 note.

TITLE XI—NEW RIVER GORGE NATIONAL RIVER

Establishment  
and  
administration.  
16 USC  
460m-15.

SEC. 1101. For the purpose of conserving and interpreting outstanding natural, scenic, and historic values and objects in and around the New River Gorge and preserving as a free-flowing stream an important segment of the New River in West Virginia for the benefit and enjoyment of present and future generations, the Secretary of the Interior (hereinafter referred to as the "Secretary") shall establish and administer the New River Gorge National River. The Secretary shall administer, protect, and develop the national river in accordance with the provisions of the Act of August 25, 1916 (39 Stat. 535; 16 U.S.C. 1 et seq.), as amended and supplemented; except that any other statutory authority available to the Secretary for the preservation and management of natural resources may be utilized to the extent he finds such authority will further the purposes of this title. The boundaries of the national river shall be as generally depicted on the drawing entitled "Proposed New River Gorge National River" numbered NERI-20,002, dated July 1978, which shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.

Boundary  
description,  
availability for  
public inspection.

Acquisition of  
lands, waters, or  
interests.  
16 USC  
460m-16.

SEC. 1102. (a) Within the boundaries of the New River Gorge National River, the Secretary may acquire lands and waters or interests therein by donation, purchase with donated or appropriated funds, transfer, or exchange. Lands owned by the State of West Virginia or a political subdivision thereof may be acquired by donation only. The authority of the Secretary to condemn in fee, improved properties as defined in subsection (c) of this section shall not be invoked as long as the owner of such improved property holds and uses it in a manner compatible with the purposes of this title. The Secretary may acquire any such improved property without the consent of the owner whenever he finds that such property has undergone, since January 1, 1978, or is imminently about to undergo, changes in land use which are incompatible with the purposes of the national river. The Secretary may acquire less than fee interest in any improved or unimproved property within the boundaries of the national river.

Non-federally  
owned lands.

(b) On non-federally owned lands within the national river boundaries, the Secretary is authorized to enter into cooperative agreements with organizations or individuals to mark or interpret properties of significance to the history of the Gorge area.

"Improved  
property."

(c) For the purposes of this Act, the term "improved property" means (i) a detached single family dwelling, the construction of which was begun before January 1, 1977 (hereafter referred to as "dwelling"), together with so much of the land on which the dwelling is situated, the said land being in the same ownership as the dwelling, as the Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures necessary to the dwelling

as the Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures necessary to the dwelling which are situated on the land so designated, or (ii) property developed for agricultural uses, together with any structures accessory thereto which were so used on or before January 1, 1977, or (iii) commercial and small business properties which were so used on or before January 1, 1977, the purpose of which is determined by the Secretary to contribute to visitor use and enjoyment of the national river. In determining when and to what extent a property is to be considered an "improved property", the Secretary shall take into consideration the manner of use of such buildings and lands prior to January 1, 1977, and shall designate such lands as are reasonably necessary for the continued enjoyment of the property in the same manner and to the same extent as existed prior to such date.

(d) The owner of an improved property, as defined in this title, on the date of its acquisition, as a condition of such acquisition, may retain for himself, his heirs and assigns, a right of use and occupancy of the improved property for noncommercial residential, or agricultural purposes, or the continuation of existing commercial operations, as the case may be, for a definite term of not more than twenty-five years, or, in lieu thereof, for a term ending at the death of the owner or the death of his spouse, whichever is later. The owner shall elect the term to be reserved. Unless the property is wholly or partially donated, the Secretary shall pay to the owner the fair market value of the property on the date of its acquisition, less the fair market value of the property on that date of the right retained by the owner. A right retained by the owner pursuant to this section shall be subject to termination by the Secretary upon his determination that it is being exercised in a manner inconsistent with the purposes of this title, and it shall terminate by operation of law upon notification by the Secretary to the holder of the right of such determination and tendering to him the amount equal to the fair market value of that portion which remains unexpired.

Sec. 1103. (a) Within two years from the date of enactment of this title, the Secretary shall submit, in writing, to the House Committee on Interior and Insular Affairs, the Senate Committee on Energy and Natural Resources and the Committees on Appropriations of the United States Congress, a detailed plan which shall indicate—

(i) the lands and areas which he deems essential to the protection and public enjoyment of the natural, scenic, and historic values and objects of this national river;

(ii) the lands which he has previously acquired by purchase, donation, exchange, or transfer for the purpose of this national river;

(iii) the annual acquisition program (including the level of funding) which he recommends for the ensuing four fiscal years; and

(iv) the feasibility and suitability of including within the boundaries of the national river, the section of the New River from Fayetteville to Gauley Bridge, and reasons therefor.

Sec. 1104. The Secretary shall on his own initiative, or at the request of any local government having jurisdiction over land located in or adjacent to the Gorge area, assist and consult with the appropriate officials and employees of such local government in establishing zoning laws or ordinances which will assist in achieving the purposes of this title. In providing assistance pursuant to this section, the Secretary shall endeavor to obtain provisions in such zoning laws or ordinances which—

Right of use and occupancy, term.

Fair market value.

Termination, notification.

Plan, submittal to congressional committees.  
16 USC  
460m-17.

Zoning laws and ordinances, establishment assistance.  
16 USC  
460m-18.

<p>Mining, prohibition and limitation. 16 USC 460m-19.</p>	<p>(1) have the effect of restricting incompatible commercial and industrial use of all real property in or adjacent to the Gorge area;</p> <p>(2) aid in preserving the character of the Gorge area by appropriate restrictions on the use of real property in the vicinity, including, but not limited to, restrictions upon building and construction of all types; signs and billboards; the burning of cover; cutting of timber; removal of topsoil, sand, or gravel; dumping, storage, or piling of refuse; or any other use which would detract from the esthetic character of the Gorge area; and</p> <p>(3) have the effect of providing that the Secretary shall receive advance notice of any hearing for the purpose of granting a variance and any variance granted under, and of any exception made to, the application of such law or ordinance.</p> <p>Sec. 1105. (a) Notwithstanding any other provision of law, no surface mining of any kind shall be permitted on federally owned lands within the boundary of the national river where the subsurface estate is not federally owned. Underground mining on such lands may be permitted by the Secretary only if—</p> <p>(1) the mining operation will have no significant adverse impact on the public use and enjoyment of the national river;</p> <p>(2) the mining operation will disturb the minimum amount of surface necessary to extract the mineral; and</p> <p>(3) the surface is not significantly disturbed, unless there is no technologically feasible alternative.</p>
<p>Timber harvesting.</p>	<p>(b) The harvesting of timber on federally owned lands within the national river boundary is prohibited, except insofar as it is necessary for the Secretary to remove trees for river access, historic sites, primitive campgrounds, scenic vistas, or as may be necessary from time to time for reasons of public health and safety.</p>
<p>Recovery.</p>	<p>(c) The owner of a mineral estate subject to this section who believes he has suffered a loss by operation of this section, may bring an action only in a United States district court to recover just compensation, which shall be awarded if the court finds that such loss constitutes a taking of property compensable under the Constitution.</p>
<p>Hunting and fishing zones, designation. 16 USC 460m-20.</p>	<p>Sec. 1106. The Secretary may permit hunting and fishing on lands and waters under his jurisdiction within the boundaries of the New River Gorge National River in accordance with applicable Federal and State laws, and he may designate zones where, and establish periods when, no hunting or fishing shall be permitted for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment. Except in emergencies, any rules and regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the appropriate State agency responsible for hunting and fishing activities.</p>
<p>Rules and regulations, consultation.</p>	<p>Sec. 1107. The Federal Energy Regulatory Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act (41 Stat. 1063) as amended (16 U.S.C. 791a et seq.), on or directly affecting the New River Gorge National River, and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary. Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above the New River Gorge National River or on any stream tributary thereto which will not invade the area or diminish the scenic, recreation, and fish and wildlife values present in the area on the date of this section. No department or agency of the United States shall recommend authorization of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined</p>
<p>Advisement to Secretary and report to Congress.</p>	

PUBLIC LAW 95-625—NOV. 10, 1978

92 STAT. 3545

by the Secretary, or request appropriations to begin construction on any such project whether heretofore or hereafter authorized, without advising the Secretary in writing of its intention to do so at least sixty days in advance, and without specifically reporting to the Congress in writing at the time it makes its recommendation or request in what respect construction of such project would be in conflict with the purposes of this section and would effect the national river and the values to be protected by it under this section.

PUBLIC LAW 100-534—OCT. 26, 1988

102 STAT. 2699

Public Law 100-534  
100th Congress

## An Act

To protect and enhance the natural, scenic, cultural, and recreational values of certain segments of the New, Gauley, Meadow, and Bluestone Rivers in West Virginia for the benefit of present and future generations, and for other purposes.

Oct. 26, 1988  
[H.R. 900]

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

## SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.

This Act may be cited as the "West Virginia National Interest River Conservation Act of 1987".

West Virginia  
National  
Interest River  
Conservation  
Act of 1987.  
National Park  
System.  
16 USC 460m-15  
note.

## TABLE OF CONTENTS

- Sec. 1. Short title and table of contents.  
Sec. 2. Findings and purposes.

## TITLE I—NEW RIVER GORGE NATIONAL RIVER

- Sec. 101. Boundary modification.  
Sec. 102. Cooperative agreements with State.  
Sec. 103. Improvement of access at Canard.  
Sec. 104. Flow management.  
Sec. 105. Visitor facility.

## TITLE II—GAULEY RIVER NATIONAL RECREATION AREA

- Sec. 201. Establishment.  
Sec. 202. Administration.  
Sec. 203. Miscellaneous.  
Sec. 204. Authorization of appropriations.  
Sec. 205. Special conditions.  
Sec. 206. Advisory committee.

## TITLE III—BLUESTONE NATIONAL SCENIC RIVER

- Sec. 301. Designation of Lower Bluestone River.

## TITLE IV—GENERAL PROVISIONS

- Sec. 401. Coordination among recreational resources.  
Sec. 402. Special provisions.  
Sec. 403. Public awareness program.  
Sec. 404. Consolidated management.  
Sec. 405. New spending authority subject to appropriations.

## TITLE V—TECHNICAL CHANGE TO WILD AND SCENIC RIVERS ACT

- Sec. 501. Acreage limitations.

## SEC. 2. FINDINGS AND PURPOSE.

16 USC 460m-15  
note.

(a) FINDINGS.—The Congress finds that—

(1) The outstanding natural, scenic, cultural and recreational values of the segment of the New River in West Virginia within the boundaries of the New River Gorge National River have been preserved and enhanced by its inclusion in the National Park System.

(2) The establishment of the New River Gorge National River has provided the basis for increased recreation and tourism

102 STAT. 2700

PUBLIC LAW 100-534—OCT. 26, 1988

activities in southern West Virginia due to its nationally recognized status and has greatly contributed to the regional economy.

(3) Certain boundary modifications to the New River Gorge National River are necessary to further protect the scenic resources within the river's visual corridor and to provide for better management of the national park unit.

(4) Several tributaries of the New River in West Virginia also possess remarkable and outstanding features of national significance. The segment of the Gauley River below Summersville Dam has gained national recognition as a premier whitewater recreation resource. The lower section of the Bluestone River and the lower section of the Meadow River possess remarkable and outstanding natural, scenic, and recreational values due to their predominantly undeveloped condition.

(5) Portions of several of the New River tributaries, including segments of the Gauley River, the Meadow River, and the Bluestone River are suitable for inclusion in the National Park System or the National Wild and Scenic Rivers System.

(6) It is in the national interest to preserve the natural condition of certain segments of the New, Gauley, Meadow, and Bluestone Rivers in West Virginia and to enhance recreational opportunities available on the free-flowing segments.

(b) **PURPOSE.**—The purpose of this Act is to provide for the protection and enhancement of the natural, scenic, cultural, and recreational values on certain free-flowing segments of the New, Gauley, Meadow, and Bluestone Rivers in the State of West Virginia for the benefit and enjoyment of present and future generations.

**TITLE I—NEW RIVER GORGE NATIONAL RIVER**

**SEC. 101. BOUNDARY MODIFICATION.**

Section 1101 of the National Parks and Recreation Act of 1978 (16 U.S.C. 460m-15) is amended by striking out "NERI-20,002, dated July 1978" and substituting "NERI-80,023, dated January 1987".

**SEC. 102. COOPERATIVE AGREEMENTS WITH STATE.**

Title XI of the National Parks and Recreation Act of 1978 is amended by adding the following new section at the end thereof:

16 USC 460m-26.

Law enforcement and crime.

**"SEC. 1113. COOPERATIVE AGREEMENTS WITH STATE.**

"In administering the national river, the Secretary is authorized to enter into cooperative agreements with the State of West Virginia, or any political subdivision thereof, for the rendering, on a reimbursable or non-reimbursable basis, of rescue, fire fighting, and law enforcement services and cooperative assistance by nearby law enforcement and fire preventive agencies."

**SEC. 103. IMPROVEMENT OF ACCESS AT CUNARD.**

Title XI of the National Parks and Recreation Act of 1978 is amended by adding the following new section at the end thereof:

16 USC 460m-27.

Real property. Safety.

**"SEC. 1114. IMPROVEMENT OF ACCESS AT CUNARD.**

"(a) **DEVELOPMENT AND IMPROVEMENT.**—The Secretary shall expeditiously acquire such lands, and undertake such developments and improvements, as may be necessary to provide for commercial and noncommercial access to the river near Cunard. No restriction

shall be imposed on such access based on the time of day, except to the extent required to protect public health and safety.

"(b) **INTERIM MEASURES.**—Pending completion of the developments and improvements referred to in subsection (a), the Secretary shall permit the motorized towing of whitewater rafts in the section of the national river between Thurmond and Cunard when the volume of flow in the river is less than three thousand cubic feet per second."

**SEC. 104. FLOW MANAGEMENT.**

Title XI of the National Parks and Recreation Act of 1978 is amended by adding the following new section at the end:

**"SEC. 1115. FLOW MANAGEMENT.**

16 USC 460m-28.

"(a) **FINDINGS.**—The Congress finds that adjustments of flows from Bluestone Lake project during periods of low flow are necessary to respond to the congressional mandate contained in section 1110 of this Act and that such adjustments could enhance the quality of the recreational experience in the segments of the river below the lake during those periods as well as protect the biological resources of the river.

"(b) **REPORT TO CONGRESS REQUIRED.**—The Secretary of the Army, in conjunction with the Secretary of the Interior, shall conduct a study and prepare a report under this section. The report shall be submitted to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Interior and Insular Affairs of the United States House of Representatives not later than December 31, 1989. Before submission of the report to these Committees, a draft of the report shall be made available for public comment. The final report shall include the comments submitted by the Secretary of the Interior and the public, together with the response of the Secretary of the Army to those comments.

Public information.

"(c) **CONTENTS OF STUDY.**—The study under this section shall examine the feasibility of adjusting the timing of daily releases from Bluestone Lake project during periods when flows from the lake are less than three thousand cubic feet per second. The purpose of such adjustment shall be to improve recreation (including, but not limited to, fishing and whitewater recreation) in the New River Gorge National River. Any such adjustments in the timing of flows which are proposed in such report shall be consistent with other project purposes and shall not have significant adverse effects on fishing or on any other form of recreation in Bluestone Lake or in any segment of the river below Bluestone Lake. The study shall assess the effects of such flow adjustments on the quality of recreation on the river in the segments of the river between Hinton and Thurmond and between Thurmond and the downstream boundary of the New River Gorge National River, taking into account the levels of recreational visitation in each of such segments.

Fish and fishing.

"(d) **TEST PROCEDURES.**—As part of the study under this section, the Secretary of the Army shall conduct test releases from Bluestone Lake project during twenty-four-hour periods during the summer of 1989 when flows are less than three thousand cubic feet per second from the project. All such adjustments shall conform to the criteria specified in subsection (c). The tests shall provide adjustments in the timing of daily flows from Bluestone Lake project which permit flows higher than the twenty-four-hour average to reach downstream recreational segments of the river during morning and afternoon hours. The tests shall develop specific data on the

102 STAT. 2702

PUBLIC LAW 100-534—OCT. 26, 1988

effects of flow adjustments on the speed of the current and on water surface levels in those segments. No test shall be conducted when flows from the lake are less than one thousand seven hundred cubic feet per second and no test shall reduce flows below that level.”.

**SEC. 105. VISITOR FACILITY.**

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

16 USC 460m-29.

Public information.

Appropriation authorization.

**“SEC. 1116. GLADE CREEK VISITOR FACILITY.**

“In order to provide for public use and enjoyment of the scenic and natural resources of the New River Gorge National River and in order to provide public information to visitors with respect to the national river and associated State parklands, the Secretary is authorized and directed to construct a scenic overlook and visitor information facility at a suitable location accessible from Interstate 64 in the vicinity of Glade Creek within the boundary of the national river. There is authorized to be appropriated such sums as may be necessary to carry out construction (including all related planning and design) of the scenic overlook and visitor information facility.”.

**TITLE IV—GENERAL PROVISIONS**

**SEC. 401. COORDINATION AMONG RECREATIONAL RESOURCES.**

16 USC 460m-15 note.

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

**SEC. 402. SPECIAL PROVISIONS.**

16 USC 460m-15 note. Contracts.

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

**SEC. 403. PUBLIC AWARENESS PROGRAM.**

16 USC 1274 note.

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

Reports.

102 STAT. 2708

PUBLIC LAW 100-534—OCT. 26, 1988

on Energy and Natural Resources of the United States Senate describing the program undertaken pursuant to this section. Section 7(b) of the Wild and Scenic Rivers Act shall continue to apply to the segments subject to this section until December 31, 1992.

Termination  
date.**SEC. 404. CONSOLIDATED MANAGEMENT.**

In order to achieve the maximum economy and efficiency of operations in the administration of the National Park System units established or expanded pursuant to this Act, the Secretary shall consolidate offices and personnel administering all such units to the extent practicable and shall utilize the existing facilities of the New River Gorge National River to the extent practicable.

16 USC 460m-15  
note.**SEC. 405. NEW SPENDING AUTHORITY SUBJECT TO APPROPRIATIONS.**

Any new spending authority which is provided under this Act shall be effective for any fiscal year only to the extent or in such amounts as provided in appropriation Acts.

16 USC 460m-15  
note.

**Table A.1 New River Gorge National River – Summary of Park Legislation and Related Legislative Mandates**

Year	Public Law	Statute	Summary
1978	PL95-625	92 Stat. 3544-3548	Includes enabling legislation for New River Gorge National River.
1986	PL99-590	100 Stat. 3339-3340	Authorized acquisition of up to 10 acres outside the park boundary for an administrative site; used to acquire site for headquarters at Glen Jean.
1987	PL100-71	101 Stat. 415	Authorizes WV DNR to conduct black fly spraying program (HR 1827-86)
1988	PL100-446	102 Stat. 1782	Authorizes NPS to undertake friendly land condemnation
1988	PL100-534	102 Stat. 2699-2708	Includes enabling legislation for Gauley River National Recreation Area and Bluestone National Scenic River. Provides findings and purpose for New River Gorge National River (NERI), Gauley River National Recreation Area (GARI), and the Bluestone National Scenic River (BLUE). For NERI provides boundary modification, cooperative agreements with the state, improvement of access at Cunard, flow management, and visitor facility (Glade Creek). Also includes promotion of recreation in southern West Virginia, state regulation of commercial watercraft services on the New River, Gauley River, and Bluestone River, public awareness of wild/scenic designation on other rivers, and consolidation of management offices for the three parks.
1991	PL102-154	105 Stat. 996	Authorized NPS to make road improvements for the purpose of public safety on WV Route 25 between Glen Jean and Thurmond.
1992	PL102-381	106 Stat. 1382-1383	Authorized NPS to spend \$4.2 million on Fayette Station Bridge.
1992	PL102-580	106 Stat. 4810-4811	Directed the U.S. Army Corps of Engineers to study debris removal at Bluestone Dam.
1996	PL104-333	110 Stat. 4149-4153 110 Stat. 4243-4244	Authorizes NERI and BLUE boundary modifications and management of fish and wildlife resources. Establishes National Coal Heritage Area.
1998	PL105-178	112 Stat. 205	Authorized NPS to spend \$12.2 million for a visitor center in the vicinity of I-64 and Sandstone.
2002	PL107-356	116 Stat. 3013	Authorized expansion of the NERI boundary to the upstream limit of Hawks Nest State Park.
2003	PL108-108	117 Stat. 1281-1282	Directed NPS to adopt a special regulation concerning continued hunting at NERI.
2009	PL 111-11		Amends the park's enabling legislation to provide that hunting and fishing shall be permitted in accordance with federal and state laws.

Table A.2 New River Gorge National River – Other Special Mandates

Party with Whom Agreement Exists	Type of Agreement and General Provisions
<ul style="list-style-type: none"> <li>■ <b>Arnott Property</b></li> </ul>	<p>Memorandum of Agreement (MOA) provides for public use of private property (Tract 112-15) in order to access the New River in the vicinity of Meadow Creek. Specific provisions address minimal facilities and services to be provided by the NPS as well as Mr. Arnott's right to charge commercial entities for their use of his property. The most recent five-year MOA was signed on June 13, 2005.</p>
<ul style="list-style-type: none"> <li>■ <b>CSX Transportation Police</b></li> </ul>	<p>Memorandum of Agreement (MOA) provides for the NPS to enforce certain federal regulations on CSX property within New River Gorge National River in a manner consistent with the NPS mission. The most recent five-year MOA was signed on December 16, 2004.</p>
<ul style="list-style-type: none"> <li>■ <b>Concord University</b></li> </ul>	<p>General Agreement sets forth objectives of a feasibility study on the joint future use of the NPS-owned Camp Brookside as a research and educational facility. The most recent five-year CA was signed in August 2005.</p>
<ul style="list-style-type: none"> <li>■ <b>New River Blueway Partners</b></li> </ul>	<p>Memorandum of Understanding (MOU) provides for the NPS to cooperate with the US Army Corps of Engineers and various state agencies in Virginia and North Carolina to promote a canoe trail on the New River by the use of a common logo on signs and informational media. This initiative intends to facilitate the public's recreational use of the New River by sharing information about river access sites and support facilities. The most recent five-year MOU was signed in April 2006.</p>
<ul style="list-style-type: none"> <li>■ <b>New River Parkway Authority</b></li> <li>■ <b>Federal Highway Administration</b></li> <li>■ <b>WV DOT Division of Highways</b></li> </ul>	<p>Memorandum of Understanding (MOU), signed in 1999 and referenced in the 2003 Final Environmental Impact Statement (FEIS) for the New River Parkway, provides 14 conditions for selection of West Bank Alternative 2A/2D as the preferred alternative. Included in these conditions is a stipulation that the parkway "shall be located, designed and administered in such a manner as to cause no significant harm, short or long term, to the New River Gorge National River...", and that the NPS "will have a lead role in establishing mitigation and parkway planning standards and will concur in any and all decisions regarding location, design and construction of the parkway. This shall include a Service construction monitor/supervisor on site during construction to ensure the protection of sensitive resources crucial to the park's mission; ..." Further, NPS land required for construction "will be replaced with land of at least fair market value and of reasonably equivalent usefulness and location." The MOU is intended to remain in effect during planning and construction activities for the parkway.</p>
<ul style="list-style-type: none"> <li>■ <b>New River Parkway Authority</b></li> <li>■ <b>Federal Highway Administration</b></li> <li>■ <b>WV DOT Division of Highways</b></li> <li>■ <b>WV State Historic Preservation Officer</b></li> </ul>	<p>Memorandum of Agreement (MOA), revised in September 2003, defines the process for protecting and/or documenting cultural resources during the remainder of the New River Parkway construction project. Several stipulations provide that the signatories will work together to ensure protection of the Richmond Farm, the Richmond-Hamilton Farm, the Stone Wall, and archeological resources in the project corridor. The New River Parkway Authority is also responsible for developing a land management system to guide future development and minimize future secondary impacts to the area.</p>

**Table A.2 New River Gorge National River – Other Special Mandates** (continued)

Party with Whom Agreement Exists	Type of Agreement and General Provisions
<ul style="list-style-type: none"> <li>■ <b>Theatre West Virginia</b></li> </ul>	<p>General Agreement provides conditions allowing Theatre West Virginia to utilize the Cliffside Amphitheater at Grandview for the “sole purpose of operating and maintaining a production company for the performing arts and related activities for the benefit of the general public...”</p>
<ul style="list-style-type: none"> <li>■ <b>Town of Fayetteville</b></li> </ul>	<p>GA establishes standards, terms, and conditions under which the NPS and the town of Fayetteville will provide access and maintain trails and foot paths on NPS and town properties near the Fayetteville Town Park. The current GA, signed in 2004, has a five-year term.</p>
<ul style="list-style-type: none"> <li>■ <b>WV Division of Natural Resources</b></li> </ul>	<p>MOA to jointly manage a public fishing access area at Camp Brookside. The site was in existence when the NPS purchased the Camp Brookside property in 1933 from Elkem Metals Company in 1993 who had built the camp as a condition of its hydropower license for the Hawks Nest/ Glen Ferris Hydropower Projects. The agreement with WV DNR specifies that NPS will be responsible for maintaining road access, including the vehicle bridge, the grounds, and bulletin board, and will consult with WVDNR on enforcement issues and sign wording. The agreement, signed February 11, 1994, is in effect for 40 years.</p>
<ul style="list-style-type: none"> <li>■ <b>Local Fire and Law Enforcement Entities</b></li> </ul>	<p>Agreements to provide for coordinated communications and response to emergency situations for better public service.</p>
<ul style="list-style-type: none"> <li>■ <b>Specific Properties</b></li> </ul>	<p>Numerous deeded rights are reserved by previous owners of property now owned by NPS such as cemetery access, utility corridors, and various other rights-of-way.</p>

**Table A.3 New River Gorge National River – Special Park Designations**

Designation	Finding
<p>■ <b>Outstandingly Remarkable Values</b> (National Park Service, 1982)</p>	<p>The New River from Bluestone Dam to Gauley Bridge is listed on the Nationwide Rivers Inventory of free-flowing rivers with Outstandingly Remarkable Values (ORVs) pursuant to Section 5(d) of the National Wild and Scenic Rivers Act (16 U.S.C 1271-1287). The New River possesses four ORVs, including:</p> <ul style="list-style-type: none"> <li>- wildlife (segment includes 23 federally-designated threatened or endangered species, including the New River crayfish, big mouth chub, Kanawha darter, New River snail, and ephemeral cave scud)</li> <li>- culture (segment includes the New River Bridge – the larges expansion bridge in the world)</li> <li>- recreation (a nationally recognized whitewater recreation area)</li> <li>- geology (reported to be the oldest river – geologically – in North America)</li> </ul> <p>All federal agencies must seek to avoid or mitigate actions that would adversely affect NRI segments.</p>
<p>■ <b>Nationally Significant and Unique Wildlife Ecosystem</b> (U.S. Fish and Wildlife Service, 1977)</p>	<p>New River Gorge is designated by the U.S. Fish and Wildlife Service and the West Virginia Division of Natural Resources as a nationally significant and unique wildlife ecosystem. These areas have wildlife or wildlife habitat values that go beyond local values in the sense that they provide substantial benefits to the public over a wide geographical area or are significantly different from other habitats in an area.</p>
<p>■ <b>Resource Category 1 Habitat</b> (U.S. Fish and Wildlife Service, 1986)</p>	<p>Habitat of the New River is designated a Resource Category 1 habitat for purposes of determining actions required to mitigate the impacts of federal actions to fish and wildlife populations, their habitat, and the human uses thereof. Federal actions include: actions requiring a federally-issued permit or license that would impact waters of the U.S.; major federal actions significantly affecting the quality of the human environment; and other federal actions for which the U.S. Fish and Wildlife Service has legislative authority or executive direction for involvement. Resource Category 1 habitat includes habitat of high value for evaluation species and is unique and irreplaceable on a national basis or in the ecoregion section. The mitigation goal is no loss of existing habitat value. The U.S. FWS management guideline states that:</p> <ul style="list-style-type: none"> <li>- all losses of existing habitat be prevented as these one-of-a-kind areas cannot be replaced</li> <li>- insignificant changes that do not result in adverse impacts on habitat value may be acceptable provided they will have no significant cumulative impact</li> </ul>
<p>■ <b>High Quality Stream</b> (State of West Virginia, 1986)</p>	<p>The New River is classified by the state of West Virginia as a high quality stream. These include streams with native or stocked populations of trout and native warmwater streams five or more miles in length with desirable fish populations that are utilized by the public. Policy directs public agencies to avoid actions that impact fish populations (especially trout) in high quality streams.</p>
<p>■ <b>American Heritage River</b> (Executive Order 13061, 1998)</p>	<p>The New River in Virginia, North Carolina, and West Virginia is designated an American Heritage River. The American Heritage River Initiative offers streamlined access to federal resources for projects that are created, planned, and implemented by local communities who voluntarily participate. The federal role in management of American Heritage Rivers is to solely support community-based efforts to preserve, protect, and restore designated rivers and their communities.</p>

**Table A.3 New River Gorge National River – Special Park Designations** (continued)

Designation	Finding
<ul style="list-style-type: none"> <li>■ <b>Protected Stream</b> (State of West Virginia, 1969)</li> </ul>	<p>The New River from its confluence with the Gauley River to its confluence with the Greenbrier River is designated a protected stream within the state’s natural streams preservation system. Protected streams are to be managed for the use and enjoyment of the citizens of West Virginia in such manner as will leave them unimpaired for future use and enjoyment as free-flowing streams, and so as to provide for their protection and preservation in their natural character. Regulations state that permits will not be granted for work that will materially alter or affect the free-flowing characteristics of a substantial part of a protected stream.</p>
<ul style="list-style-type: none"> <li>■ <b>Aquatic Resource of National Importance</b> (U.S. Environmental Protection Agency, 2007)</li> </ul>	<p>The New River is designated an Aquatic Resource of National Importance (ARNI). As such, individual permits for discharges of dredge or fill material are eligible for a higher level of review within the Department of the Army. Factors used in identifying ANRIs include: economic importance of the aquatic resource, rarity or uniqueness, and/or importance of the aquatic resource to the protection, maintenance, or enhancement of the quality of the nation’s waters.</p>



# Appendix B

## Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies

## Appendix B

### Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies

Federal Mandates	Reference	Purpose	Compliance Required by
National Park Service Organic Act of 1916	16 U.S.C. 1-4 et seq.	Promotes and regulates the use of national parks, monuments, and reservations, by such means and measures as to conserve the scenery and the natural and historic objects and the wildlife therein and provides for the enjoyment of the land in such manner as will leave them unimpaired for the enjoyment of future generations	National Park Service
National Parks and Recreation Act of 1978	16. U.S.C. 1(a)-7(b)	Requires the National Park Service to conduct comprehensive general management planning on park units	National Park Service
Government Performance and Results Act of 1993	P.L. 103-62; 31 U.S.C. 1101	Requires Federal Agencies to develop a strategic planning and performance management system establishing goals and reporting results	Federal Agencies
National Parks Omnibus Management Act of 1998	P.L. 105-391; 112 Stat 3497; 36 CFR 51	Public accommodations, facilities, and services in NPS units shall be limited to those accommodations, facilities, and services necessary for public use and enjoyment, and consistent with the preservation and conservation of the resources and values of the unit	National Park Service
General Authorities Act of 1970, as amended in 1978	16 U.S.C. 1a-1	Affirmed that all national park areas, including historic sites, while acknowledged to be "distinct in character," were "united through their interrelated purposes and resources into one national park system, as cumulative expressions of a single national heritage"	National Park Service
National Environmental Policy Act of 1969 (NEPA)	P.L. 91-190, as amended by P.L. 94-52; 42 U.S.C. 4321-4347	Establishes national policy for protection of the human environment and ensures that decision-makers take into account; requires all Federal Agencies to analyze alternatives and document impacts resulting from proposed actions that could potentially affect the natural and human environment	Federal Agencies
Council on Environmental Quality (CEQ) Regulations, as amended	40 CFR 1500-1508	Implements NEPA and provides guidance to Federal Agencies in the preparation of environmental documents identified under NEPA	Federal Agencies
Procedural Provisions of the National Environmental Policy Act by CEQ, as amended	40 CFR Parts 1500-1508	Provides guidance to Federal Agencies in the preparation of environmental documents	Federal Agencies
Administrative Procedures Act of 1979, as amended	5 U.S.C. 551, et seq	Outlines the forms of administrative proceedings (hearings, adjudication, etc.) and prescribes procedural and substantive limitations thereon; provides for judicial review of federal decision-making actions	Federal Agencies
National Trust Act of 1949	16. U.S.C. 468-c-e	Facilitates public participation in the preservation of sites, buildings, and objects of national significance or interest	Federal Agencies
Historic Sites Act of 1935	16 U.S.C. 461-467; 36 CFR 65	Establishes a national policy to preserve historic sites and objects of national significance for public use	Federal Agencies

**Appendix B. Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies (continued)**

Federal Mandates (continued)	Reference	Purpose	Compliance Required by
National Historic Preservation Act of 1966, as amended; Sec. 106 and Sec. 110	16 U.S.C. 470; 36 CFR 60,63, 65,78-79, 800	Protects and preserves districts, sites, and structures and architectural, archeological, and cultural resources; Section 106 requires consultation with the State Historic Preservation Office; Section 110 requires that NPS identify and nominate all eligible resources under its jurisdiction to the National Register of Historic Places	Federal Agencies
Antiquities Act of 1906, as amended	16. U.S.C. 431-433	Provides for the protection of historic and prehistoric remains, "or any antiquity," on federal lands; authorizes the President to declare national monuments by proclamation; authorizes the scientific investigation of antiquities on federal lands; provides for protection of historic monuments on public lands	Federal Agencies
Archeological and Historic Preservation Act of 1974, as amended	16 U.S.C. 469-469c	Requires survey, recovery and preservation of significant scientific, prehistorical, historical, archeological, or paleontological data when such data may be destroyed due to a federal project; directs Federal Agencies to notify the Secretary of the Interior whenever they find that such a project may cause loss or damage	Federal Agencies
Archeological Resources Protection Act of 1979, as amended	16 U.S.C. 470aa-mm	Prohibits the unauthorized excavation or removal of archeological resources on federal and Indian land. Archeological resources include sites, features, artifacts, etc.	Federal Agencies
Native American Graves Protection and Repatriation Act	25 U.S.C. 3001 et seq; 43 CFR 10	Requires Federal Agencies and museums receiving federal funding to return Native American cultural items – including human remains – to their respective peoples (allowing a short time for analysis by archeological teams)	Federal Agencies and museums receiving federal funding
American Indian Religious Freedom Act	42 U.S.C. 21	Protects and preserves the traditional religious rights of American Indians, Eskimos, Aleuts, and Native Hawaiians on federal lands	Federal Agencies
Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation	48 CFR 44716	Organizes information about federal preservation activities; describes results to be achieved by Federal Agencies, states, and other when planning for the identification, evaluation, registration and treatment of historic properties; integrates diverse efforts of many entities performing historic preservation into a systematic effort to preserve the nation's cultural heritage	Federal, State, and Local Agencies
Secretary of the Interior's Standards for the Treatment of Historic Properties	36 CFR 68	Provides guidance regarding the treatment of historic properties, focusing treatments: preservation, rehabilitation, restoration, and reconstruction	National Park Service
The Architectural Barriers Act of 1968; the Rehabilitation Act of 1973; and Americans with Disabilities Act of 1990	42 U.S.C. 4157 et seq.; 29 U.S.C. 701, et seq.; 42 U.S.C. 12101, P.L. 101-336. 1-4 Stat. 327	Requires public buildings constructed, altered, leased, or financed with federal funds to be accessible to persons with disabilities; ensures that all facilities and programs are accessible to visitors with disabilities	Federal, State, and Local Agencies
Federal Cave Resources Protection Act	16. U.S.C. 4301-4310	Protects and preserves significant caves on federal lands for the perpetual use, enjoyment, and benefit of all people; fosters increased cooperation and exchange of information between governments and those who use caves on federal land	Federal Agencies

**Appendix B. Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies (continued)**

Federal Mandates (continued)	Reference	Purpose	Compliance Required by
Clean Water Act (CWA) of 1977, as amended, Sec. 401, Sec. 402 and Sec. 404(b)(1)	33 U.S.C. 121, et seq.	Sec. 401 regulates water quality requirements specified under the CWA; Section 402 requires a National Pollutant Discharge Elimination System (NPDES) permit for discharges into waters of the U.S.; Sec. 404 requires a permit before dredging or filling wetlands can occur	Federal, State, and Local Agencies
Rivers and Harbors Act of 1899	33 U.S.C. 403	Prohibits construction of any bridge, dam, dike or causeway over or in navigable waterways of the U.S. without Congressional approval	Federal, State, and Local Agencies
Federal Water Pollution Control Act of 1972, as amended	33 U.S.C. 1251-1376, et seq.	Establishes criteria and performance standards for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters through prevention, reduction, and elimination of pollution	Federal, State, and Local Agencies
Fish and Wildlife Coordination Act of 1934, as amended	16 U.S.C. 661-666c; 48 Stat. 401	Requires Federal Agencies to coordinate with the FWS when any project involves impoundment, diversion, channel deepening or other modification of a stream or water body	Federal, State, and Local Agencies
Clean Air Act (CAA) Amendments of 1990, as amended; Sec. 118	42 U.S.C. 7401, et seq. 42 U.S.C. 7609	Establishes standards to protect and improve air quality; requires project conformity with State Implementation Plan concerning air quality; Sec. 118 requires federal land managers to protect air quality on federal land	Federal, State, and Local Agencies
Endangered Species Act of 1973, as amended	16 U.S.C. 1531-1543	Establishes a policy to protect and restore federally listed threatened and endangered species of flora and fauna	Federal, State, and Local Agencies
Surface Mining Control and Reclamation Act of 1977, as amended	P.L. 95-87	Provides funding for: (1) reclamation and restoration of land and water resources adversely affected by past coal mining, including but not limited to reclamation and restoration of abandoned surface mine areas, abandoned coal processing areas, and abandoned coal refuse disposal area (2) sealing and filling abandoned deep mine entries and voids (3) planting of land adversely affected by past coal mining to prevent erosion and sedimentation; prevention, abatement, treatment, and control of water pollution created by coal mine drainage including restoration of stream beds, and construction and operation of water treatment plants (4) prevention, abatement, and control of burning Section 522(e) prohibits or restricts surface coal mining operations on certain lands, including, among other areas, units of the National Park System, federal lands in national forests, and buffer zones for public parks, public roads, occupied dwellings, and cemeteries	Federal, State, and Local Agencies
Land and Water Conservation Fund Act of 1965, as amended; Section 6(f)	16 U.S.C. 4601-4 to 4601-11	Preserves, develops, and assures the quality and quantity of outdoor recreational resources; applies to all projects that impact recreational lands involving funds obtained from the Land and Water Conservation Fund	Federal, State, and Local Agencies
Federal Farmland Protection Act of 1981	7 U.S.C. 4201-4209	Minimizes impacts of federal programs on the unnecessary and irreversible conversion of farmland to nonagricultural uses; assures to the extent possible that federal programs are administered to be compatible with the farmland protection programs and policies of state and local units of government and private organizations	Federal, State, and Local Agencies

**Appendix B. Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies (continued)**

<b>Federal Mandates (continued)</b>	<b>Reference</b>	<b>Purpose</b>	<b>Compliance Required by</b>
Resource Conservation and Recovery Act, as amended	42 U.S.C. s/s 6901 et seq. (1976)	Authorizes USEPA to control hazardous waste, including the generation, transportation, treatment, storage, and disposal of hazardous waste; RCRA also sets forth a framework for the management of non-hazardous wastes; addresses environmental problems resulting from underground storage tanks; focuses on active and future facilities, not abandoned or historical sites	federal, state and Local Governments; private industry
Federal Communications Commission Procedures Implementing the National Environmental Policy Act of 1969	47 CFR 1.301-1.1319	Addresses impacts that proposed antenna structures may have on historical sites and other protected resources	Federal Communications Commission and cell service carriers
Uniform Relocation Assistance and Real Property Acquisition Policies Act	42 U.S.C. 4601 et seq.	Establishes uniform policies to compensate people displaced from their homes or businesses by activities that are wholly or partially federally-funded	Federal Agencies
Payments In Lieu of Taxes Act (PILOT or PILT), as amended by P.L. 98-63	P.L. 94-565 (31 U.S.C. 6901-6907), recodified at 31 U.S.C. 6907	Provides certain payments from the Federal Government to Local Governments to compensate for the removal of land from the local real estate tax base and the amount (acres) of certain public lands within the boundaries of local governmental units	National Park Service
Department of Transportation Act of 1966, Section 4(f)	49 U.S.C. 303	Requires the Secretary of Transportation to demonstrate that there is no feasible or prudent alternative to impacting publicly-owned land in a park, recreation area, wildlife and waterfowl refuge, or an historic site of national, state or local significance, or any land from an historic site of national, state or local significance, and that all possible planning to minimize harm to such land is incorporated into proposed transportation project	U.S Department of Transportation; WV DOT; FAA
Wilderness Act of 1964	P.L. 88-577 (16 U.S.C. 1131-1136)	Establishes the National Wilderness Preservation System to include federal lands designated as "wilderness" by Congress; directs the Secretary of the Interior to review all roadless areas of 5,000 contiguous acres or more in national parks for designation as wilderness	U.S. Department of the Interior
<b>NPS Mandates</b>	<b>Reference</b>	<b>Purpose</b>	<b>Compliance Required by</b>
Final Draft Park Planning Program Standards	NPS 2007	Describes the National Park Service framework for park planning and decision-making, which includes six discrete kinds of planning, each with its own particular purpose and standards	National Park Service
National Park Service Management Policies 2006	NPS 2006	Sets the policy framework and provides direction for all management decisions for units of the national park system	National Park Service
NPS Special Directive 92-11 and P.L. 105-391	P.L. 105-391	Identifies NPS criteria and qualifications for resource evaluation and determination of a site's suitability and feasibility for inclusion in the national park system; provides guidance for NPS special resource studies	National Park Service
Conservation Planning, Environmental Impact Analyses and Decision-Making	Director's Order 12 and Handbook for Environmental Analysis	Provides bureau guidance on NEPA compliance consistent with CEQ regulations and on approaches to environmental documentation	National Park Service

**Appendix B. Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies (continued)**

NPS Mandates (continued)	Reference	Purpose	Compliance Required by
National Park Service Tourism	Director's Order 17	Promotes and supports sustainable, responsible, informed, and managed visitor use through cooperation and coordination with the tourism industry	National Park Service
Land Protection	Director's Order 25	Articulates the framework for land protection and the process for land acquisition and interests in land within the authorized boundaries of NPS units; the policy includes direction for parks to develop a "land protection plan," which establishes land acquisition priorities	National Park Service
Cultural Resource Management	Director's Order 28	Addresses the preservation and treatment of archeological, cultural, and historic properties and ethnographic resources	National Park Service
Cultural Resource Management Guideline Release No. 5	NPS-28	Addresses standards and requirements for research, planning, and stewardship of cultural resources, as well as management of archeological resources, cultural landscapes, historic, and prehistoric structures, museum objects, and ethnographic resources	National Park Service
Cultural Resource Management	Director's Order 28A	Articulates framework for planning, reviewing, and undertaking archeological activities and other activities that may affect archeological resources within the National Park System; also addresses the manner in which the Service will meet its archeological assistance responsibilities outside the national parks	National Park Service
Coordination with State Historic Preservation Officers	Programmatic MOA among NPS, Advisory Council on Historic Preservation and National Council of SHPOs (1995; revised 2002)	Describes how the NPS will carry out its Section 106 responsibilities with respect to managing the national park system; states that the NPS will coordinate with SHPO activities for research related to resource management needs and identification, evaluation, and registration of park historic properties	National Park Service
Accessibility for Park Visitors	Director's Order 42	Ensures that all people have the highest level of accessibility that is reasonable to NPS programs, facilities, and services in conformance with applicable regulations and standards	National Park Service
Special Park Uses	Director's Order 53	Provides supplemental guidance to Section 8.6 of NPS Management Policies on permitting special park uses	National Park Service
Natural Resource Management Guidelines	NPS-77	Guides the actions of park managers so that natural resource management activities planned and initiated at field areas comply with federal laws and regulations, and with Department of the Interior and NPS policy	National Park Service
Wetlands Protection	Director's Order 77-1	Establishes NPS policies, requirements and standards for implementing Executive Order 11990, "Protection of Wetlands;" recommends park units obtain a parkwide wetland inventory, based on "Classification of Wetlands and Deepwater Habitats of the U.S.," FWS/OBS-79-31	National Park Service
Wilderness Preservation and Management	Director's Order 41 and Reference Manual 41	Provides accountability, consistency, and continuity to the NPS's wilderness management program and to generally guide NPS policies to comply with the Wilderness Act of 1964	National Park Service

**Appendix B. Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies (continued)**

<b>NPS Mandates (continued)</b>	<b>Reference</b>	<b>Purpose</b>	<b>Compliance Required by</b>
Integrated Pest Management Manual and Integrated Pest Management Plan	Reference Manual 77-7	Describes the biology and management of 21 species or categories of pests; minimizes the use of toxic pesticides and establishes a strategy for the control of invasive species	National Park Service
Structural Fire Management	Directors Order 58 and Reference Manual-58	Supplements the structural fire policy articulated in NPS Management Policies by setting forth the policies and procedures necessary to establish and implement structural fire management programs throughout the national park system	National Park Service
<b>Federal Executive Orders</b>	<b>Reference</b>	<b>Purpose</b>	<b>Compliance Required by</b>
Intergovernmental Review of Federal Programs	E.O. 12372	Establishes clearinghouse coordination required with state and local agencies concerning impacts of federal projects	Federal Agencies
Protection and Enhancement of Environmental Quality	E.O. 11514, as amended by E.O. 11990	Provides federal leadership in protecting and enhancing the quality of the nation's environment to sustain and enrich human life	Federal Agencies
Protection of Floodplains	E.O. 11988	Establishes federal policy to avoid long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to preserve the natural and beneficial values served by floodplains	Federal Agencies
Protection of Wetlands	E.O. 11990	Requires Federal Agencies to consider all practicable alternatives to impacting wetlands	Federal Agencies
Off-Road Vehicles on Public Lands	E.O. 11644, as amended by E.O. 11989	Requires public land managers to establish policies and procedures to ensure that the use of off-road vehicles on public lands will be controlled to protect the resources, to promote the safety of all users of those lands and to minimize conflicts among the various uses of those lands	Federal Agencies
Invasive Species	E.O. 13112	Prevents the introduction of invasive species and provides for their control and to minimize the economic and human health impacts that invasive species cause	Federal Agencies
American Indian Sacred Sites	E.O. 13007	Requires that management of federal land shall, to the extent practicable, permitted by law, accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of sacred sites	Federal Agencies
Greening the Government through Efficient Energy Management	E.O. 13123	Directs the Federal Government to significantly improve its energy management in order to save taxpayer dollars and reduce emissions that contribute to air pollution and global climate change; sets specific goals for federal agencies to reduce energy consumption	Federal agencies
Governmental Actions and Interference with Constitutionally Protected Property Rights	E.O. 12630	Establishes federal policy to assist Federal Agencies in proposing, planning and implementing actions with due regard to the constitutional protections provided by the Fifth Amendment and to reduce undue or inadvertent burdens on the public resulting from lawful government action	Federal Agencies
Federal Actions to Address Env Justice in Minority Populations and Low-Income Populations	E.O. 12898	Established federal policy to avoid federal actions that cause disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment	Federal Agencies

**Appendix B. Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies (continued)**

<b>Federal Executive Orders (continued)</b>	<b>Reference</b>	<b>Purpose</b>	<b>Compliance Required by</b>
Protection and Enhancement of the Cultural Environment	E.O. 11593	Establishes federal policy to protect and enhance the cultural environment	Federal Agencies
Strengthening Federal Environmental, Energy, and Transportation Management	E.O. 13423	Requires federal agencies to conduct their environmental, transportation, and energy-related activities in support of their respective missions in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.	Federal Agencies
Government-to-Government Relations with Tribal Governments	Presidential Memorandum of April 29, 1994	Establishes principles to be followed by federal departments and agencies in their interactions with Native American tribal governments and requiring consideration of the impacts of federal actions on tribal trust resources	Federal Agencies
<b>State of West Virginia Mandates</b>	<b>Reference</b>	<b>Purpose</b>	<b>Compliance Required by</b>
Air Pollution Control Act	W.Va. Code, §22-5-1 <i>et seq</i> and W.Va. Code St. Regs. §45	Provides for a coordinated statewide program of air pollution prevention, abatement and control; to facilitate cooperation across jurisdictional lines in dealing with air pollution not confined within single jurisdictions; and to provide a framework within which values may be balanced in the public interest	WV Department of Environmental Protection (DEP)
Water Pollution Control Act	W.Va. Code, §22-12-1 <i>et seq</i>	Establishes as public policy of the state to maintain reasonable standards of purity and quality of water and to make available the quantity of water for the reasonable use by all of the citizens of the state	WV Office of Water Resources (OWR)
Groundwater Protection Act	W.Va. Code, §22-12-1 <i>et seq</i>	Establishes as public policy of the state to maintain and protect the state's groundwater so as to support the present and beneficial uses and further to maintain and protect groundwater at existing quality where the existing quality is better than the required to maintain and protect the present and future beneficial uses.	WV Department of Environmental Protection (DEP), Environmental Quality Board (EQB)
Natural Streams Preservation Act	W.Va. Code, §22-13-1 to <i>et seq</i>	Establishes as public policy of the state to secure for the citizens of West Virginia the benefits of an enduring resource of free-flowing streams possessing outstanding scenic, recreational, geological, fish and wildlife, botanical, historical, archeological or other scientific or cultural values; establishes a natural stream preservation system, including among others the New River from its confluence with the Gauley River to its confluence with the Greenbrier River	WV Department of Natural Resources (DNR)
Solid Waste Management Act	W.Va. Code, §22-15-1 <i>et seq</i>	To establish an efficient, environmentally safe procedure for the disposal of sewage sludge and/or domestic sewage from a publicly-owned treatment works facility; requires all solid waste to be disposed, processed, stored, transferred, or recycled only at permitted solid waste facilities.	WV Department of Environmental Protection (DEP)
Hazardous Waste Management Act	W.Va. Code, §22-18-1 <i>seq</i>	To protect public health and safety and the environment from the effects of the improper, inadequate or unsound management of hazardous wastes; to establish a program of regulation over the storage, transportation, treatment, and disposal of hazardous wastes; to assure the safe and adequate management of hazardous wastes	WV Department of Environmental Protection (DEP)

**Appendix B. Applicable Federal and State of West Virginia Laws and Regulations and National Park Service Policies (continued)**

State of West Virginia Mandates (continued)	Reference	Purpose	Compliance Required by
Underground Storage Tank Act	W.Va. Code §22-17-1 <i>et seq</i>	Creates a program to control the installation, operation and abandonment of underground storage tanks and to provide for corrective action to remedy releases of regulated substances from underground storage tanks	WV Department of Environmental Protection (DEP)
Abandoned Well Act	W.Va. Code, §22-10-1 <i>et seq</i>	Declares it a public policy in the state to foster, encourage, and promote the proper plugging of all abandoned oil and gas wells at the time of their abandonment to protect the environment and mineral resources	WV Department of Environmental Protection (DEP)
Game and Wildlife Codes	W.Va. Code, §20-2-1 <i>et seq</i>	Declares it a public policy in the state that the wildlife resources shall be protected for the use and enjoyment of all citizens and that all species of wildlife shall be maintained for values which may be either intrinsic or ecological or of benefit to man, including 1) hunting, fishing, and other diversified recreational uses, 2) economic contributions in the best interests of the people of the state, and 3) scientific and educational uses	WV DNR, Division of Wildlife
Cultural Resources	W.Va. Code, §29-1-1 <i>et seq</i>	Creates the State Historic Preservation Office within the Division of Culture and History and grants to it a number of duties, including the ability to locate, survey, investigate, register, identify, preserve, and protect historic, architectural, archeological and cultural sites, and structures and objects worthy of preservation; also gives the section the ability to review all undertakings permitted, funded, licensed or otherwise assisted by the state in order to protect historic resources	WV State Historic Preservation Office
Whitewater Outfitters and Guides Act	W.Va. Code, §20-2-23 <i>et seq</i>	Creates the WV Whitewater Commission and establishes special provisions for the New River and the Gauley River; calls for implementation of an allocation methodology for commercial outfitter licenses; and calls for a limits of acceptable change study to be completed	WV Department of Natural Resources
Whitewater Responsibility Act	W.Va. Code, §20-3B-1 <i>et seq</i>	Defines the areas of responsibility and actions for which commercial whitewater outfitters and commercial whitewater guides are liable for loss, damage, or injury	WV Department of Natural Resources
Commercial Whitewater Regulations	W.Va. Code St. Regs. §58	Provides for regulation of commercial whitewater rafting, outfitting, and related activities to assure safe operations and protect the environment	WV Department of Natural Resources
Regulation of All Terrain Vehicles	W.Va. Code §17-F	Defines all terrain vehicles (ATVs), defines safe ATV operations, empowers local communities to regulate the use of ATVs, and requires safety awareness courses for young ATV drivers	Variable
Land Use Planning; Subdivision; Zoning; Farmland Protection	W.Va. Code §8a	Requires communities to adopt comprehensive plans that include a statement on present and future land use, as well as goals and objectives specifically regarding land use, housing, transportation, infrastructure, public services, recreation, economic development, community design, rural areas, preferred development areas, renewal/ redevelopment, financing, and historic preservation; provides enabling legislation for regulating the use of land through subdivision and zoning ordinances; provides enabling legislation for voluntary farmland protection programs	Local Governments



# Appendix C Compliance Coordination

## Appendix C

### Compliance Coordination

- Response Letter Received from W.V. Department of Natural Resources ..... C-1  
(December 8, 2008)
- Letter Sent by the NPS to U.S. Fish and Wildlife Service ..... C-6  
(April 10, 2007)
- Letter Sent by the NPS to WV State Historic Preservation Officer ..... C-7  
(February 6, 2006)
- Representative Letter Sent by the NPS to Tribal Nations<sup>1</sup> ..... C-8  
(August 2, 2006)
- Email Received from Absentee-Shawnee Tribe Historic Preservation Officer ..... C-10  
(August 30, 2006)
- NPS Response to Absentee-Shawnee Tribe of Indians of Oklahoma ..... C-11  
(September 7, 2006)
- Letter Received by the NPS from the Onondaga Nation ..... C-13  
(September 11, 2006)
- NPS Response to the Onondaga Nation (September 26, 2006) ..... C-14

---

<sup>1</sup> *Similar Letters Sent to the Following Tribes:*

- *Appalachian American Indians of West Virginia*
- *Cayuga Nation*
- *Eastern Shawnee Tribe of Oklahoma*
- *Haudenosaunee Cultural Resource Center*
- *Haudenosaunee Standing Committee on Burial Rules and Regulations*
- *Monacan Indian Nation*
- *Onondaga Nation*
- *Seneca-Cayuga Tribe of Oklahoma*
- *Shawnee Tribe*
- *Tonawanda Seneca Nation*
- *Tuscarora Nation*
- *Tuscarora Tribe*
- *Virginia Council on Indians*





**DIVISION OF NATURAL RESOURCES**

Wildlife Resources Section  
Operations Center  
P.O. Box 67

Elkins, West Virginia 26241-3235  
Telephone (304) 637-0245  
Fax (304) 637-0250

Joe Manchin III  
Governor

Frank Jezioro  
Director

December 8, 2008

Ms. Deborah Darden  
National Park Service  
New River Gorge National River  
P.O. Box 246  
Glen Jean, WV 25843

Dear Ms. Darden:

Enclosed are the listing of plant communities, rare plants and rare or endangered animals currently documented within the boundaries of the New River Gorge National River in Fayette, Raleigh and Summers counties, WV. These lists will be emailed to you as well.

Please keep in mind that the lists were created with information currently in the Wildlife Diversity Program's Biotics database. This database is continually being updated, and therefore all rare species records may not be represented within the lists we provided.

If you have any questions or require additional information do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Barbara Sargent".

Barbara Sargent  
Environmental Resources Specialist  
Wildlife Diversity Program



enclosures

**Rare animals documented from the New River Gorge National River - 2008**

Name	Common Name	SRANK	GRANK	FEDERAL
<i>Ambystoma jeffersonianum</i>	Jefferson salamander	S3	G4	
<i>Aneides aeneus</i>	Green salamander	S3	G3G4	
<i>Cicindela ancosciconensis</i>	A tiger beetle	S3	G3G4	
<i>Corynorhinus rafinesquei</i>	Rafinesque's big-eared bat	S1	G3G4	
<i>Corynorhinus townsendii virginianus</i>	Virginia big-eared bat	S2	G4T2	LE
<i>Cyclonaias tuberculata</i>	Purple wartyback	S1	G5	
<i>Desmognathus quadramaculatus</i>	Black-bellied salamander	S3	G5	
<i>Eumeces anthracinus anthracinus</i>	Northern coal skink	S2	G5T5	
<i>Eumeces laticeps</i>	Broad-headed skink	S2	G5	
<i>Eurycea lucifuga</i>	Cave salamander	S3	G5	
<i>Lampsilis fasciola</i>	Wavy-rayed lampmussel	S2	G5	
<i>Lasmigona subviridis</i>	Green floater	S2	G3G4	
<i>Myotis leibii</i>	Eastern small-footed bat	S1	G3G4	
<i>Myotis sodalis</i>	Indiana bat	S1	G2	LE
<i>Neotoma magister</i>	Allegheny woodrat	S3	G3G4	
<i>Nocomis platyrhynchus</i>	Bigmouth chub	S3S4	G4Q	
<i>Notropis scabriceps</i>	New River shiner	S2	G4	
<i>Ochrotomys nuttalli</i>	Golden mouse	S2	G5	
<i>Opheodrys aestivus</i>	Rough greensnake	S3	G5	
<i>Phoxinus oreas</i>	Mountain redbelly dace	S3	G5	
<i>Pseudotriton ruber</i>	Northern red salamander	S3	G5	
<i>Sorex dispar</i>	Long-tailed shrew	S2S3	G4	
<i>Sorex hoyi winnemana</i>	Southern pygmy shrew	S2S3	G5T4	
<i>Speyeria diana</i>	Diana fritillary	S2S3	G3G4	
<i>Tritogonia verrucosa</i>	Pistolgrip	S2	G4G5	

Rare plants documented from the New River Gorge National River - 2008				
Name	Common Name	SRANK	GRANK	FEDERAL
<i>Arabis hirsuta</i> var. <i>pycnocarpa</i>	Hairy rockcress	S2	G5T5	
<i>Aristida purpurascens</i> var. <i>purpura</i>	Purple needlegrass	S1	G5T5	
<i>Baptisia australis</i> var. <i>australis</i>	Wild blue indigo	S3	G5T3T4	
<i>Calopogon tuberosus</i> var. <i>tuberosus</i>	Grass pink	S1	G5T5	
<i>Cardamine flagellifera</i>	Bitter cress	S2	G3	
<i>Carex aestivalis</i>	Summer sedge	S2	G4	
<i>Carex careyana</i>	Carey's sedge	S1	G4G5	
<i>Carex comosa</i>	Bearded sedge	S2	G5	
<i>Carex emoryi</i>	Emory's sedge	S2	G5	
<i>Carex mesochorea</i>	Midland sedge	S2	G4G5	
<i>Carex molesta</i>	Troublesome sedge	S3	G4	
<i>Carex nigromarginata</i>	Black-edge sedge	S3	G5	
<i>Carex styloflexa</i>	Bent sedge	S1	G4G5	
<i>Carex suberecta</i>	Prairie straw sedge	S1	G4	
<i>Carex typhina</i>	Cat-tail sedge	S2	G5	
<i>Carex woodii</i>	Pretty sedge	S2	G4	
<i>Commelina erecta</i> var. <i>angustifolia</i>	Slender day-flower	S2	G5T5	
<i>Corallorhiza wisteriana</i>	Spring coralroot	S2	G5	
<i>Coreopsis pubescens</i> var. <i>robusta</i>	Star tickseed	S2	G5?T3T5	
<i>Croton glandulosus</i> var. <i>septentrionalis</i>	Northern croton	S3	G5T5	
<i>Cuscuta indecora</i> var. <i>neuropetala</i>	Pretty dodder	S1	G5T5	
<i>Cyperus refractus</i>	Reflexed flatsedge	S3	G5	
<i>Desmodium lineatum</i>	Sand tick-trefoil	S1	G5	
<i>Eleocharis compressa</i>	Flat-stemmed spike-rush	S2	G4	
<i>Eleocharis intermedia</i>	Matted spike-rush	S1	G5	
<i>Eupatorium pilosum</i>	Vervain thoroughwort	S2	G5	
<i>Fimbristylis annua</i>	Annual fimbry	S1	G5	
<i>Galactia volubilis</i>	Downy milkpea	S2	G5	
<i>Helianthus occidentalis</i> ssp. <i>occidentalis</i>	McDowell sunflower	S2	G5T5	
<i>Hibiscus laevis</i>	Halberd-leaved mallow	S2	G5	
<i>Hypericum virgatum</i>	Coppery St. John's-wort	S1	G4?	
<i>Juncus dichotomus</i>	Forked rush	S1	G5	
<i>Lythrum alatum</i> var. <i>alatum</i>	Winged-loosestrife	S2	G5T5	
<i>Melica mutica</i>	Two-flowered melic grass	S2	G5	
<i>Najas gracillima</i>	Slender water nymph	S2	G5?	

<i>Pellaea glabella</i> ssp. <i>glabella</i>	Smooth cliffbrake	S2	G5T5
<i>Piptochaetium avenaceum</i>	Blackseed needlegrass	S2	G5
<i>Platanthera psycodes</i>	Small purple-fringe orchid	S1	G5
<i>Poa saltuensis</i>	Drooping bluegrass	S1	G5
<i>Pogonia ophioglossoides</i>	Rose pogonia	S2	G5
<i>Polygala curtisii</i>	Curtiss' milk-wort	S2	G5
<i>Pycnanthemum loomisii</i>	Loomis' mountain-mint	S2	G4?
<i>Pycnanthemum torrei</i>	Torrey's mountain-mint	S1	G2
<i>Ranunculus pusillus</i> var. <i>pusillus</i>	Low spearwort	S1	G5T4?
<i>Rhynchospora recognita</i>	Globe beak-rush	S2	G5?
<i>Salix lucida</i> ssp. <i>Lucida</i>	Shining willow	S1	G5T5
<i>Saxifraga careyana</i>	Carey saxifrage	S3	G3
<i>Schoenoplectus purshianus</i>	Weakstalk bulrush	S3	G4G5
<i>Scutellaria saxatilis</i>	Rock skullcap	S2	G3
<i>Sida hermaphrodita</i>	Virginia mallow	S3	G3
<i>Silene nivea</i>	Snowy campion	S1	G4?
<i>Siiphium perfoliatum</i> var. <i>connat</i>	Virginia cup-plant	S1	G5T3?
<i>Spiranthes tuberosa</i>	Little ladies'-tresses	S3	G5
<i>Sporobolus clandestinus</i>	Rough dropseed	S1	G5
<i>Stachys nuttallii</i>	Nuttall's hedge-nettle	S3	G5?
<i>Stachys tenuifolia</i>	Smooth hedge-nettle	S3	G5
<i>Triphora trianthophora</i>	Nodding pogonia	S2	G3G4
<i>Vitis rupestris</i>	Sand grape	S2	G3

Plant communities documented from the New River Gorge National River - 2008			
Name	Common Name	SRANK	GRANK
<i>Acer rubrum</i> - <i>Nyssa sylvatica</i> / <i>Ilex verticillata</i> - <i>Vaccinium fuscatum</i> / <i>Osmunda cinnamomea</i> forest		SNR	G3G4
<i>Alnus serrulata</i> - <i>Hypericum densiflorum</i> shrub wetland	Smooth alder - Glade St. John's-wort shrub swamp	S3?	G4
<i>Andropogon gerardii</i> - <i>Baptisia australis</i> riverscour prairie	Big bluestem - False indigo riverscour prairie	S2S3	G2G3
<i>Betula allegheniensis</i> / <i>Rhododendron maximum</i> forest	Yellow birch cold cove	S2S3	GNR
<i>Carex torta</i> riverscour prairie	Twisted sedge riverscour prairie	S3?	G3G4
<i>Hypericum densiflorum</i> / <i>Juncus effusus</i> / <i>Sphagnum</i> ssp. sl	Bushy St. John's-wort shrub swamp	S3?	GNR
<i>Juniperus virginiana</i> - <i>Pinus virginiana</i> - <i>Quercus stellata</i> / <i>Asp</i>	Riverside flatrock Virginia pine - Red cedar - Post oak woodland	S1	G2?
<i>Juniperus virginiana</i> - <i>Pinus virginiana</i> sparsely vegetated r	Open high riverscour flatrock	S1	GNR
<i>Leersia oryzoides</i> - <i>Sagittaria latifolia</i> marsh	Rice cutgrass marsh	S3?	GNR
<i>Pinus rigida</i> - <i>Quercus coccinea</i> / <i>Gaylussacia baccata</i> / <i>Epig</i>	Clifftop Pitch pine woodland	S2S3	GNR
<i>Pinus virginiana</i> -( <i>Quercus</i> spp.)/ <i>Nyssa sylvatica</i> / <i>Gaultheri</i>	Clifftop Virginia pine forest	S2S3	G4?
<i>Platanus occidentalis</i> - <i>Fraxinus pensylvanica</i> / <i>Carpinus car</i>	Sycamore - Red ash floodplain forest	S3?	GNR
<i>Platanus occidentalis</i> - <i>Ulmus americana</i> / <i>Andropogon gera</i>	Open low riverscour flatrock	S1S2	GNR
<i>Quercus</i> ( <i>velutina</i> , <i>rubra</i> , <i>alba</i> )- <i>Liriodendron tulipifera</i> / <i>Hak</i>	High floodplain oak forest	S2?	GNR
<i>Quercus prinus</i> / <i>Kalmia latifolia</i> forest	Oak / Mountain laurel forest	S4	GNR
<i>Quercus</i> ssp.-( <i>Liriodendron tulipifera</i> , <i>Carya</i> spp.) forest	Oak - Tulip poplar forest	S5	GNR
<i>Saururus cernuus</i> - <i>Boehmeria cylindrica</i> herbaceous wetla	Lizardtail - False nettle backwater slough	S3?	GNR
<i>Sparganium</i> ( <i>americanum</i> , <i>chlorocarpum</i> ) marsh	American bur-reed marsh	S2	G2G3
<i>Tsuga canadensis</i> - <i>Betula lenta</i> / <i>Rhododendron maximum</i>	Hemlock / Giant rhododendron forest	S5	G5
<i>Tsuga canadensis</i> - <i>Quercus prinus</i> / <i>Rhododendron catawba</i>	Hemlock - Chestnut oak / Catawba rhododendron forest	S2	G3?



United States Department of the Interior

NATIONAL PARK SERVICE

NEW RIVER GORGE NATIONAL RIVER  
GAULEY RIVER NATIONAL RECREATION AREA  
BLUESTONE NATIONAL SCENIC RIVER  
104 Main Street  
P.O. Box 246  
Glen Jean, West Virginia 25846



IN REPLY REFER TO

FILE COPY

April 10, 2008

L7617 (NERI)

Thomas R. Chapman  
U.S. Fish and Wildlife Service  
West Virginia Field Office  
694 Beverly Pike  
Elkins, WV 26241

Re: Section 7, Consultation for Rare, Threatened, or Endangered Species. New River Gorge National River, *General Management Plan and Environmental Impact Statement*

Dear Mr. Chapman:

In February of 2006 we notified your office that we were preparing a major revision to the New River Gorge National River General Management Plan (GMP). The GMP will identify the park's fundamental resources, actions needed to protect those resources, and the experiences visitors may have in the park. The draft GMP will be accompanied by an Environmental Impact Statement (EIS). Enclosed are a vicinity map and a site map of New River Gorge National River in Fayette, Raleigh, and Summers Counties, West Virginia.

As we prepare the draft plan we again request any information your office may provide regarding federally listed threatened or endangered species, species of concern, or critical habitat(s) that may be affected within the New River Gorge National River. The draft GMP/EIS that is prepared utilizing this information will be forwarded to your office for review and comment later this year.

If you or your staff has questions, please feel free to contact me at (304) 465-0508.

Sincerely,

Deborah A. Darden  
Deputy Superintendent

Enclosure





Department of the Interior  
NATIONAL PARK SERVICE  
NEW RIVER GORGE NATIONAL RIVER  
GAULEY RIVER NATIONAL RECREATION AREA  
BLUESTONE NATIONAL SCENIC RIVER  
104 Main Street  
P.O. Box 246  
Glen Jean, West Virginia 25846



IN REPLY REFER TO:

February 6, 2006

A42(NERI)

**NERI GMP**

Ms. Susan M. Pierce  
Deputy State Historic Preservation Officer  
Department of Culture and History  
Cultural Center  
Capitol Complex  
Charleston, WV 25305

Dear Ms. Pierce:

We are writing to inform you that the New River Gorge National River is beginning the process to update its 1982 General Management Plan (GMP).

Our preliminary discussions indicate that the preservation and protection of cultural resources will be an important goal of the GMP. Recent historical and archeological baseline studies and our nomination of Nuttallburg to the National Register of Historic Places demonstrate the significance of the park's cultural resources. We would like to invite you and your staff to actively participate in the public meetings and in reviewing the draft and final GMP. We will also be contacting local and state-level organizations that are interested in historic preservation. Our regional office will be responsible for consulting with Native American tribes such as the Shawnee, Iroquois, and Cherokee. We expect to complete the GMP in late 2007.

This information is submitted in accordance with Section 106 of the National Historic Preservation Act and 36 CFR 800, Protection of Historic and Cultural Properties. If you have any questions on this matter, please contact Deborah Darden at (304) 465-6509 or [deborah\\_darden@nps.gov](mailto:deborah_darden@nps.gov).

Sincerely,

Calvin F. Hite  
Superintendent

TAKE PRIDE<sup>®</sup>  
IN AMERICA



United States Department of the Interior

NATIONAL PARK SERVICE  
NEW RIVER GORGE NATIONAL RIVER  
GAULEY RIVER NATIONAL RECREATION AREA  
BLUESTONE NATIONAL SCENIC RIVER  
104 Main Street  
P.O. Box 246  
Glen Jean, West Virginia 25846



IN REPLY REFER TO:

D18(GMP)

August 2, 2006

Karen Kaniatobe  
Tribal Historic Preservation Officer  
Absentee-Shawnee Tribe of Indians of Oklahoma  
2025 S. Gordon Cooper Dr.  
Shawnee, OK 74801

Dear Ms. Kaniatobe:

We are writing to request your comments on a new General Management Plan/Environmental Impact Statement (GMP/EIS) that the National Park Service is developing for the New River Gorge National River (NERI). As the enclosed map shows, the park is located in Summers, Raleigh, and Fayette Counties, West Virginia, and encompasses a 55-mile corridor along the New River that extends from the city of Hinton to Hawk's Nest State Park. The new GMP will identify alternatives and priorities for visitor use of the park and the long range management of its cultural and natural resources. Since Congress established the park in 1978, many changes have occurred in and around the park that require a reformulation of the strategies to protect and interpret its natural and cultural resources.

Archeological research in southern West Virginia indicates that Native Americans lived in the lower New River region from 11,500 years ago until the mid-1600s. Previous archeological and historical studies and a recently completed archeological overview have identified over 350 archeological sites. The sites include small upland camps, rock shelters, large bottomland camps, possible hamlets or villages, and a few burial mounds, and are known primarily from surface collections and shovel testing. Glass beads and other trade items recovered from 6 archeological sites in the park indicate the presence of Native Americans between 1580 and 1650.

The cultural associations with these sites are not clear. Due to the sketchiness of the historical records, it is also not clear which, if any, contemporary tribes lived or utilized resources in the park in the past. However, it is known that Shawnee warriors raided European frontier settlements in the New River area during the mid- to late 1700s. Archeological and historical research therefore suggests that the Shawnee people are one of several Native American groups that may be culturally associated with archeological sites in the park.



Since the park is located near the Shawnee's possible ancestral homeland in the Upper Ohio Valley, and the Shawnee interacted with post-contact settlements in the New River area, we would like to initiate the Section 106 process of the National Historic Preservation Act (36 CFR 800.2 (c)(2)(ii)(B)) with the Shawnee Tribe. This letter is a formal request to the Shawnee Tribe to inform us whether there may be any features of NERI that are of cultural or religious significance to the tribe, and to invite the tribe to consult with us about these issues. If there are matters of tribal interest or concern, we would like to know the best way to enter into discussions with you so that we may discuss the management planning process with your tribe, and include its comments, perspectives, concerns and recommendations in the GMP.

At the beginning of the planning process we reaffirm the park's purpose and significance and identify its fundamental and other important resources and values. We do this to establish the framework within which we can evaluate proposed alternatives to ensure that they are consistent with the park's establishing legislation. The enclosed newsletter presents the most recent drafts of the Park Purpose, Significance, and Fundamental Resource Statements for the Shawnee Tribe's consideration. These statements are preliminary and continue to undergo revision as we receive comments from consulting parties and the general public. As a starting point, we would also like to know whether the Shawnee Tribe has any comments on the enclosed draft statements.

We look forward to entering into discussions with the Shawnee Tribe about the future planning and interpretation of NERI. If you have any suggestions about the consultation process, questions about the planning process, or would like additional information, please contact Deborah Darden, Deputy Superintendent, NERI, at (304)465-6509.

Sincerely,



Calvin F. Hite  
Superintendent

Enclosures (3)

Calvin Hite  
08/31/2006 07:42 AM  
EDT

To: David Fuerst/NERI/NPS@NPS  
cc: Deborah Darden/NERI/NPS@NPS  
Subject: Fw: From NPS.gov: Comments from the Absentee Shawnee Tribe on the GMP

Dave,

Please prepare draft reply to the message below for my review/signature by 9/8.

Thx,

Cal

----- Forwarded by Calvin Hite/NERI/NPS on 08/31/2006 07:41 AM -----

Donna Shepard  
08/30/2006 07:32 PM  
EDT

To: Calvin Hite/NERI/NPS@NPS  
cc:  
Subject: Fw: From NPS.gov: Comments from the Absentee Shawnee Tribe on the GMP

----- Forwarded by Donna Shepard/NERI/NPS on 08/30/2006 07:32 PM -----



kkaniatobe@astribe.com  
08/30/2006 05:09 PM  
AST

To: neri\_interpretation@nps.gov  
cc:  
Subject: From NPS.gov: Comments from the Absentee Shawnee Tribe on the GMP

Email submitted from: /neri/contacts.htm

Dear Mr Calvin Hite: Thank you for contacting the Absentee Shawnee Tribal Historic Preservation Office for comment. After looking over your letter, I realized I would need some additional information before I can comment as right now I have more questions than comments. About the burial mounds: How are they protected now? Have they been excavated and/or studied? What procedures do you have in place for inadvertent discoveries? Where are the artifacts stored? What areas of your park have been archeologically surveyed? How are archeological sites monitored? For future communications it is more efficient for this office to receive notification and send responses via e-mail. I look forward to hearing back from you. Thanks. Karen Kaniatobe, Tribal Historic Preservation Officer 2025 S Gordon Cooper Shawnee Oklahoma 74801 Phone: 405.275.4030 x199 Fax: 405.878.4711 Website: [www.absenteeshawneetriben-sn.gov](http://www.absenteeshawneetriben-sn.gov)



United States Department of the Interior

NATIONAL PARK SERVICE

NEW RIVER GORGE NATIONAL RIVER  
GAULEY RIVER NATIONAL RECREATION AREA  
BLUESTONE NATIONAL SCENIC RIVER

104 Main Street  
P.O. Box 246  
Glenn Jean, West Virginia 25846



IN REPLY REFER TO:

September 7, 2006

D18(GMP)

Karen Kaniatobe  
Tribal Historic Preservation Officer  
Absentee-Shawnee Tribe of Indians of Oklahoma  
2025 S. Gordon Cooper Dr.  
Shawnee, OK 74801

Dear Ms. Kaniatobe:

We are pleased to receive your questions about the management of archeological resources in the New River Gorge National River (NERI). We also look forward to receiving your tribe's comments on the park's draft General Management Plan, which we hope will be available this winter. Your tribe's questions and comments are particularly important because the park is located near the Shawnee's possible ancestral homeland in the Upper Ohio Valley. Historical records also indicate that the Shawnee interacted with post-contact settlements in the New River area.

The answers to the six questions you asked about the park's archeological resources are listed below:

Questions 1 and 2: About the burial mounds: How are they protected now? Have they been excavated and/or studied?

Mounds and other archeological sites in the park are protected through monitoring, compliance, and personnel training. Our law enforcement rangers and park cultural resource specialist regularly visit these sites to ensure they are in good condition. Our compliance program also reviews and monitors all projects, which have the potential to disturb the ground where these sites are located. In addition, the park provides training to law enforcement and maintenance staff on the sensitivity and significance of the park's archeological resources.

The mounds in the park have been identified and located, but have not been formally excavated. One mound was dug into by a local pothunter in the 1970s before the park was established in 1978. Interviews with people who knew him suggest that he recovered human remains and a chipped stone cache blade. However, the whereabouts of these funerary items is unknown.

TAKE PRIDE<sup>®</sup>  
IN AMERICA 

Question 3: What procedures do you have in place for inadvertent discoveries?

The park has an established protocol for the treatment of inadvertent discoveries. Any projects that encounter human remains and/or archeological materials are required to immediately halt work and contact the park's cultural resource specialist and/or law enforcement rangers. Personnel at the scene are also instructed in advance not to remove or disturb human remains and archeological resources. Avoidance of inadvertent discoveries is promoted through the park's compliance review process, which identifies known archeological sites and sensitive site areas prior to the start of projects.

Question 4: Where are the artifacts stored?

The artifacts that were recovered through archeological investigations are stored in the park's curation facility, which is located across the street from park headquarters in Glen Jean, WV. Access to its storage area is restricted to approved personnel. The artifacts in the park's museum collections are maintained at NPS standards and are managed in accordance with the park's 2003 Collection Management Plan. The museum collections, however, do not include any human remains, funerary objects, or objects of cultural patrimony.

Question 5: What areas of your park have been archeologically surveyed?

The first professional inventory of archeological resources was conducted in 1980-1981 (Fuerst 1981) and was a judgmental survey of probable site locations throughout the park. The survey successfully identified a number of sensitive site areas such as stream junctures and old alluvial terraces. Since that time, many other archeological surveys have been done in connection with specific construction projects. Surveys of sensitive site locations for research purposes have also nearly doubled the number of archeological sites in the park. It is estimated that baseline archeological surveys have been performed on approximately 15% of the park or roughly 9,000 acres.

Question 6: How are archeological sites monitored?

Archeological sites are primarily monitored through on-site visits by law enforcement rangers and the park's cultural resources specialist. Because of their visibility, the main archeological site type that the park monitors is rockshelters. Most of the archeological sites, however, are open sites, which are located in undisturbed forest areas. Each year the park's cultural resource specialist speaks to a gathering of law enforcement rangers to remind them about the potential impacts to archeological resources in the park.

Thank you for sending us your questions about the park's management of its archeological resources. We look forward to receiving comments of the Shawnee Tribe about the future planning and interpretation of NERI. If you have any questions about the planning process, or would like additional information, please contact Deborah Darden, Deputy Superintendent, NERI, at (304)465-6509.

Sincerely,



Calvin F. Hite  
Superintendent



Onondaga Nation  
RR #1, Route 11A  
Box 258C  
via Nedrow, NY 13120

September 11, 2006

Calvin F. Hite  
Superintendent, New River Gorge National River  
National Park Service  
104 Main Street  
P.O. Box 246  
Glen Jean, WV 25846

**RE: General Management Plan/Environmental Impact Statement**

Dear Mr. Hite:

Thank you for your letter dated August 2, 2006 concerning the General Management Plan/Environmental Impact Statement that the National Park Service is developing for the New River Gorge National River.

The Onondaga Nation is interested in consulting with you on this project under section 106 of the National Historic Preservation Act. I would be particularly interested in receiving additional information about the archeological resources at the site. Perhaps a copy of your recent report giving an overview of the archeology of the area would be the most logical place for me to begin to familiarize myself with the resources in the area.

Please contact me at (315)952-3109 if you have any questions about this matter. Thank you for your help.

Sincerely,

A handwritten signature in cursive script, appearing to read "Tony Gonyea".

Tony Gonyea  
A Faithkeeper for the Onondaga Nation  
Onondaga Nation Historic Preservation Office

cc: Onondaga Nation Council of Chiefs  
Joseph Heath, Esq.



United States Department of the Interior

NATIONAL PARK SERVICE  
NEW RIVER GORGE NATIONAL RIVER  
GAULEY RIVER NATIONAL RECREATION AREA  
BLUESTONE NATIONAL SCENIC RIVER  
104 Main Street  
P.O. Box 246  
Glen Jean, West Virginia 25846



IN REPLY REFER TO:

September 26, 2006

D18(GMP)

Tony Gonyea  
A Faithkeeper for the Onondaga Nation  
Onondaga Nation Historic Preservation Office  
RR #1, Route 11A  
Box 258C  
Nedrow, NY 13120

Dear Mr. Gonyea:

We are pleased to receive your letter indicating the Onondaga Tribe's interest in consulting with the National Park Service (NPS) on its plans for managing archeological resources in the New River Gorge National River (NERI). Enclosed is a CD with a copy of the NERI Archeological Overview and Assessment report (Pollack and Crothers 2004). The report synthesizes information on archeological resources in the park and their relationship to the native peoples who lived in the Central Appalachians. We hope the report will help you with your review of the NERI General Management Plan.

The park actively protects its archeological resources. In addition to regularly visiting archeological sites, the park's archeologist reviews and monitors all projects that may disturb the ground at these sites. Each year the park also trains law enforcement and maintenance staff on the sensitivity and significance of its archeological resources. If human remains or artifacts are encountered, workers are required to halt the project immediately and contact the park's cultural resource specialist and/or law enforcement rangers. The park does not have any human remains, funerary objects, or objects of cultural patrimony in its museum collections.

Thank you for consulting with the NPS on the NERI General Management Plan, and its proposed management of archeological resources. We look forward to receiving the Onondaga Tribe comments about the future planning and interpretation of NERI. If you have any questions about the planning process, or would like additional information, please contact Deborah Darden, Deputy Superintendent, NERI, at (304) 465-6509.

Sincerely,

Calvin F. Hite  
Superintendent

Enclosure





# Appendix D Wilderness Eligibility Assessment



# United States Department of the Interior

## NATIONAL PARK SERVICE

NEW RIVER GORGE NATIONAL RIVER  
GAGLEY RIVER NATIONAL RECREATION AREA  
BLUESTONE NATIONAL SCENIC RIVER

104 Main Street  
P.O. Box 246

Glenn Jean, West Virginia 25846



IN REPLY REFER TO

D18-NERI

May 27, 2009,

### Memorandum

To: WASO-Chief, Wilderness Stewardship & Recreation Management

From: Superintendent, New River Gorge National River

Subject: Wilderness Eligibility Assessment for New River Gorge National River

This Wilderness Eligibility Assessment for New River Gorge National River was conducted in accordance with National Park Service (NPS) Management Policies 2006 Section 6.2.1 and to support the updating of the General Management Plan (GMP).

### Overview of the Park and its Values

New River Gorge National River was established "For the purpose of conserving and interpreting outstanding natural, scenic, and historic values and objects in and around the New River Gorge and preserving as a free-flowing stream an important segment of the New River in West Virginia for the benefit and enjoyment of present and future generations..." (Public Law 95-625, November 10, 1978). The national river unit was initially approximately 50 miles in length and included about 62,000 acres.

New River Gorge National River is rich in natural and cultural history and scenic and recreational opportunities. It extends through three counties (Summers, Raleigh, and Fayette) in West Virginia, from the city of Hinton northward through pastoral landscapes, past eight riverside communities, through its cliff-lined gorge, to Hawks Nest State Park. The rail line that extends the length of the river, and which is still active today, was completed in 1873 and was used to extract timber, coal, and coke through the 1950s. The New River Gorge contains a large, outstanding, and representative group of historic colliery structures, coke ovens, historic structures, and ruins associated with the more than 50 company-owned towns located within the river corridor, as well as railroad depots, rail yards, and steel and timber trestle bridges, and subsistence farms. Recreation facilities, including visitor centers, campgrounds, river access/boat ramps, trails, and associated parking areas, have been developed at over three dozen locations and receive over 1.1 million visits annually. The whitewater rapids of the New River

attract approximately 150,000 commercially outfitted paddlers annually and over 2000 paddlers per day on weekends during the peak summer months.

The park's first GMP was completed in 1982 and called for limited land acquisition for access (less than 25% of the park designated boundary), resource protection, and public use and did not address wilderness eligibility. The largest unit of the park identified in the GMP "for acquisition in order to secure protection for the outstanding natural resources and scenic values" was the approximately 4300 acres of Glade Creek (GMP, pg 37).

In 1988, the West Virginia National Interest River Conservation Act of 1987 found that in order "To protect and enhance the natural, scenic, cultural, and recreational values of certain segments of the New, Gauley, Meadow, and Bluestone Rivers in West Virginia.....certain boundary modifications to the New River Gorge National River are necessary to further protect the scenic resources within the river's visual corridor and to provide for better management of the national park unit" (Public Law 100-534, October 26, 1988). The legislation required the NPS, among other things, to expeditiously acquire lands and undertake such developments and improvements necessary to provide a commercial and noncommercial access to the river near Cunard. The purchase of the Ward Tract in the late 1980s added 5,847 acres of previously mined and timbered but relatively undeveloped land in the Highland/Backus Mountain areas.

The boundary of the park was further modified in 1996 (Public Law 104-333, November 12, 1996) and again in 2002 (Public Law 107-356, December 17, 2002). The 1996 boundary expansion included 6753 acres in the Highland/Backus Mountain areas, which was purchased in 2002. The park increased to 55 miles in length with the last boundary modification and now includes approximately 72,000 acres, of which the NPS currently owns 56,000 acres, more or less. While most of the land within the park has been previously logged, mined, or developed, some blocks of unfragmented forests have been re-established and now provide essential habitat for endangered mammals, rare birds, and amphibians. With the acquisition of a substantial amount of federally owned lands and per NPS policy it is the purpose of this assessment to evaluate all those lands for their eligibility for inclusion in the national wilderness preservation system.

### Summary of Public Involvement

Public notices announcing the park's intention to prepare a GMP and, as part of the process, assess the potential for wilderness were placed in the Federal Register on January 30, 2006. The park held public scoping meetings in January, March, May, and July of 2006 and no comments with respect to wilderness were received and wilderness was not identified as an issue by the public.

In March of 2006, park staff met with the NPS National Wilderness Program Lead to discuss the wilderness review process. The park began preparing the initial screening assessment, which the NPS Management Policies 2006 refers to as the wilderness eligibility assessment.

In January of 2007, the Superintendent and Deputy Superintendent met with the New River Working Group at their request to discuss GMP planning issues. This group was comprised of representatives of many groups with an interest in the future of the park, including representatives of the WV Wilderness Coalition. On April 18, 2007, the Superintendent and NPS staff met with representatives of the WV Wilderness Coalition at their request to discuss the NPS process of wilderness as a component of the GMP and provide some initial background information. On June 14, 2007, the representatives of the WV Wilderness Coalition again met with park staff and completed a field reconnaissance of two of the three areas of potential interest to the group. On June 20, 2007, the WV Wilderness Coalition submitted a Citizen's Proposal that identified three areas for consideration as wilderness.

The NPS GMP Planning Team met June 27, 2007 and considered the Citizen's Proposal, which was very similar to the three areas identified by the NPS as potentially eligible for wilderness designation. It was determined that an additional public scoping meeting would be scheduled to discuss a newly developed GMP Alternative 5, and specifically, the issues of hunting, potential boundary adjustments, biking, water quality management, and wilderness designation. The newsletter mailed in October of 2007 discussed the wilderness designation process and identified the three areas potentially eligible as wilderness within the park. The public scoping meeting was held in November of 2007 and several verbal comments were received concerning the existing resource conditions and visitor uses in the areas. As of February 2008, over 700 written comments had been received. The comments were generally highly polarized concerning wilderness designation but did provide some feedback as to the extent of alteration and degree of restoration of the impacts from previous human actions in the areas.

### Summary of the Wilderness Eligibility Assessment Process

In conducting the wilderness eligibility assessment, park staff first reviewed natural and cultural resource studies, existing resource conditions, park visitation and activity trends, and current land ownership and conditions of developments. This information was used to address the Primary Eligibility Criteria, Section 6.2.1.1, of Management Policies 2006.

A remote sensing analysis was completed utilizing the parks Geographic Information System (GIS) to identify areas of development and blocks of relatively undeveloped federally owned lands within the park boundary. Most of the park was eliminated from consideration as wilderness because of the substantial level of development, including state roads, park roads, bridges, parking facilities, structures, railroad lines, utility lines, and mining impacts (map: Wilderness Eligibility Assessment - Overview). Communities, such as Thurmond, Meadow Creek, Prince and Thayer, and other places with significant amounts of private property, such as River Road between Hinton and Sandstone, were also eliminated from consideration. The river corridor was also eliminated from consideration because it is: 1) closely paralleled on one or both sides along its entire length by an active railroad line; 2) closely paralleled by roads along over fifty percent of its length; 3) accessible by vehicle at over two dozen public and private developed launch sites; 4) spanned by over a dozen bridges and transmission lines.

Eight blocks of relatively undeveloped land were identified for a closer examination of size and of remaining impacts to naturalness (map: Wilderness Eligibility Assessment - Undeveloped Areas). Aerial photography (color IR, 0.6 m pixel resolution, 2003) further revealed the impacts of mining operations, mostly conducted in the mid to late 1960's, and the impacts of logging operations. Field reconnaissance confirmed that many of these impacts are substantial and still apparent today. Due to the extent of the impacts and the small size of the areas, the following five areas were immediately determined to be ineligible for further wilderness study. All were found to be less than 5,000 acres in size and judged to be of insufficient size to make practicable their preservation as wilderness. In all five areas, the imprint of humans' work remains substantially noticeable.

Garden Ground- approximately 2,570 acres. The area was deep mined in 1965 and later strip mined along the contour creating a bench and a headwall of 50-75 feet left largely un-reclaimed. Several miles of strip bench road are still accessible and currently used by four-wheel drive vehicles.

Highland Mountain- approximately 1,340 acres. The area is bounded by an electrical transmission line to the north and state road WV 41 to the south. Interspersed is the small community of Highland Mountain, with more than a dozen residences, and the remnants of the partially reclaimed strip bench.

War Ridge- approximately 4,007 acres. The area is bounded by state road WV 41 to the north and to the east by the roads and private property of the mountain top community of Backus Mountain. An electrical distribution line and active CSX railroad bound the remainder of the area. War Ridge is bisected by an unmaintained secondary non-paved road running the length of the area. The remnants of the strip mining activities and road access remain readily noticeable and the restoration is incomplete.

Little Laurel- approximately 2,710 acres. The Little Laurel area was deep mined in 1928 and later contour strip mined and reclaimed in the 1960's. The area remains bisected by unmaintained mining bench roads and logging roads. Large areas of reclaimed strip bench are still in the process of revegetating and remain substantially noticeable.

Upper Glade Creek- approximately 1,660 acres. The area is bound on one side by Interstate I-64 and on the others by an electrical transmission line and private lands outside the park boundary. The area is bisected by an administrative road used for fish stocking and the remnants of a bridge construction access road, part of which is now the Kates Plateau trail.

The three relatively undeveloped lands that remained to be evaluated for their eligibility for inclusion in the national wilderness preservation system were Glade Creek, Dowdy Creek, and Backus Mountain. These three areas as described below are the largest and least impacted areas in the park.

Glade Creek- approximately 4,543 acres. The area is bounded to the north partially by an NPS park road, which accesses the Glade Creek campground, and partially by the proposed Thru-the-Park hiking/biking trail, which follows an existing road trace. The area is bounded to the south

by an electrical transmission line, and on all other sides by private property and the park boundary. It excludes and cherrystems a private inholding and access road (Camp Two Dog) and a segment of the Glade Creek Trail/Administrative Road and foot-bridge across Glade Creek. It excludes the mining strip bench of Redden Ridge, the historic town site of Hamlet (at the mouth of Glade Creek), and a portion of the Polls Branch Trail/Administrative Road used to maintain the towers of the electrical transmission line.

Dowdy Creek- approximately 4,241 acres. The area is bounded along the west and north by a maintained gravel state road (McKendree Road) and an electrical transmission line and the associated maintenance road. The area on the east is bounded by the park boundary and adjacent private property. The boundary to the south follows a maintained state road, excludes a private residence, cherrystems a private inholding and the unmaintained NPS gravel road which provides access, and finally follows an electrical transmission line.

Backus Mountain- approximately 2,509 acres. The area is bounded to the north by the park boundary and adjacent private property of the mountain top community of Backus Mountain. The boundary on the east drops to the bottom of the Gorge and is bounded by the remains and foundations of the historic Beurytown incline and mining town. The southern boundary then follows the maintained WV state road 7/1, excludes the private residential properties of the town of Meadow Creek, and follows the active CSX railroad. The western boundary is an electrical distribution line extending approximately ¾ mile from the mountain top community down a 50+% slope into the gorge and to the active railroad line below.

#### The New River Gorge National River Wilderness Eligibility Assessment

Comparison of resource conditions of the three remaining areas of undeveloped lands within New River Gorge National River with the Primary Eligibility Criteria, Section 6.2.1:

1. The earth and its community of life are untrammled by humans, where humans are visitors and do not remain.

Since the cessation of on-going mining and logging operations, the three areas have been largely free from human control and manipulation. Visitation by humans is generally temporary and short-term (less than 1 or two days), with the longest stays occurring during the Fall deer hunting season. No fire suppression or vegetation management activities are occurring. The lower Glade Creek area is, however, regularly stocked with non-native brown trout fingerlings as permitted by the federal enabling legislation which created the New River Gorge.

2. The area is undeveloped and retains its primeval character and influence without permanent improvements or human habitation.

Due to prior intense and on-going land use, most of the land within New River Gorge National River is not primeval in character. The undeveloped areas at Glade Creek, Dowdy Creek, and Backus Mountain generally do not contain permanent structures for human habitation but historic remnants and cemeteries do remain.

The Glade Creek, Dowdy Creek, and Backus Mountain areas all contain segments of unmaintained and unreclaimed roads associated with past logging and mining activities (also see next section). All three areas are adjacent to residential areas. Glade Creek has remnants of an historic rail line and roads used for logging, as well as agricultural fields and fences still utilized in the 1980's prior to park acquisition. The road that has become the Polls Branch trail was recently used by park personnel utilizing full-size motor vehicles to gain access to and remove debris at several trash dumps. This route follows an abandoned rail grade with hill cuts which remain substantially noticeable. Dowdy Creek and Backus Mountain have the remnants of a series of strip mine access roads and logging roads. The remnants of the Hilton strip mine haul road on Highland Mountain in the Dowdy Creek area is regularly used by hunters and campers in the Fall driving full size vehicles and pulling travel trailers.

3. The area generally appears to have been affected primarily by the forces of nature, with the imprint of humans' work substantially unnoticeable.

The Glade Creek, Dowdy Creek, and Backus Mountain areas are beginning to recover from past logging and mining activities through natural restoration processes but many of the mining bench roads and logging roads are substantial and readily noticeable.

The Glade Creek area is partially fragmented by remnants of an unused and unmaintained state road near the mouth of Glade Creek and the remnants of the unmaintained Pair-Glade Road, which extends east over 2 miles from Hamlet up to the community of Pair located just beyond the rim overlooking the river. The Pair-Glade Road has visible evidence of blasting from the construction of the road cut in the 1950s and 1960s. The Polls Branch Trail and the Glade Creek Trail follow the remnants of a rail grade used for timber extraction.

The Dowdy Creek area has remnants of strip mines where mining cuts and road access are readily noticeable and where restoration is incomplete. The extensive alteration to the landscape in these areas remains substantially noticeable. The area is also criss-crossed with secondary non-paved and four-wheel drive roads.

The Backus Mountain area has a network of mining and logging routes and the remnants of a disconnected electrical powerline extending from the community of Backus Mountain on top down to the railroad tracks below.

4. The area is protected and managed so as to preserve its natural conditions.

Since acquisition, the park has taken steps to protect and manage the areas to control visitor use and restore natural conditions. Motor vehicle use has been substantially controlled or eliminated in the Glade Creek, Dowdy Creek, and Backus Mountain areas but designated vehicle routes receive heavy use throughout hunting season.

Restoration continues through natural revegetation processes. The strip benches and reclamation areas with adequate soil coverage have begun to revegetate while those with exposed rock remain barren. Several of the areas previously disturbed by mining or logging activities have

been overtaken by invasive weeds, similarly to other areas within the park. Overall, the three areas mostly appear to be in a natural condition.

5. The area offers outstanding opportunities for solitude or a primitive and unconfined type of recreation.

The opportunities for solitude along the river are compromised by the active rail line. The sights and sounds of the trains and the tracks, which extend the length of the New River Gorge, are still frequent and common within the river corridor and its steep hillsides. Upland areas in the Glade Creek, Dowdy Creek, and Backus Mountain areas, however, do allow one to escape from the sight and sound of the trains and, when away from major motor vehicle corridors (I-64 and WV 41), do offer outstanding opportunities for primitive and unconfined types of recreation.

The opportunities for primitive and unconfined recreation within the steep terrain of the river gorge and the Glade Creek drainage are very limited. The Backus Mountain area in particular is just 2,509 acres in size and over 2000 of those acres are on slopes ranging from 50-90%. Most of steep slopes are difficult to traverse on foot except on established trails or logging roads.

Local residents frequently used four-wheel drive and all-terrain vehicles in these areas prior to NPS acquisition. Visitor use in the three areas is particularly heavy during hunting season in the Fall but the areas also receive frequent year round use. Most of the previously used routes have been signed as closed to motor vehicles but occasional illegal ATV use has been documented. Due to the lack of formalized trails, trailheads, and campgrounds most visitors are locals or hunters directed to the areas.

Conclusion

The Wilderness Eligibility Assessment for New River Gorge National River conducted by park staff and determined that all park lands within the current park boundary fail to meet the primary eligibility criteria and are therefore ineligible for further wilderness study. Park-owned lands within the boundary of the New River Gorge will not be subject to the wilderness preservation provisions but will be managed in accordance with the NPS Organic Act of 1906 and all other laws, executive orders, regulations, and policies applicable to units of the national park system.

Should you have any questions regarding this eligibility assessment, please contact Don Striker, Superintendent, or Debbie Darden, Deputy Superintendent, at 304-465-0508.

  
Don Striker, Superintendent

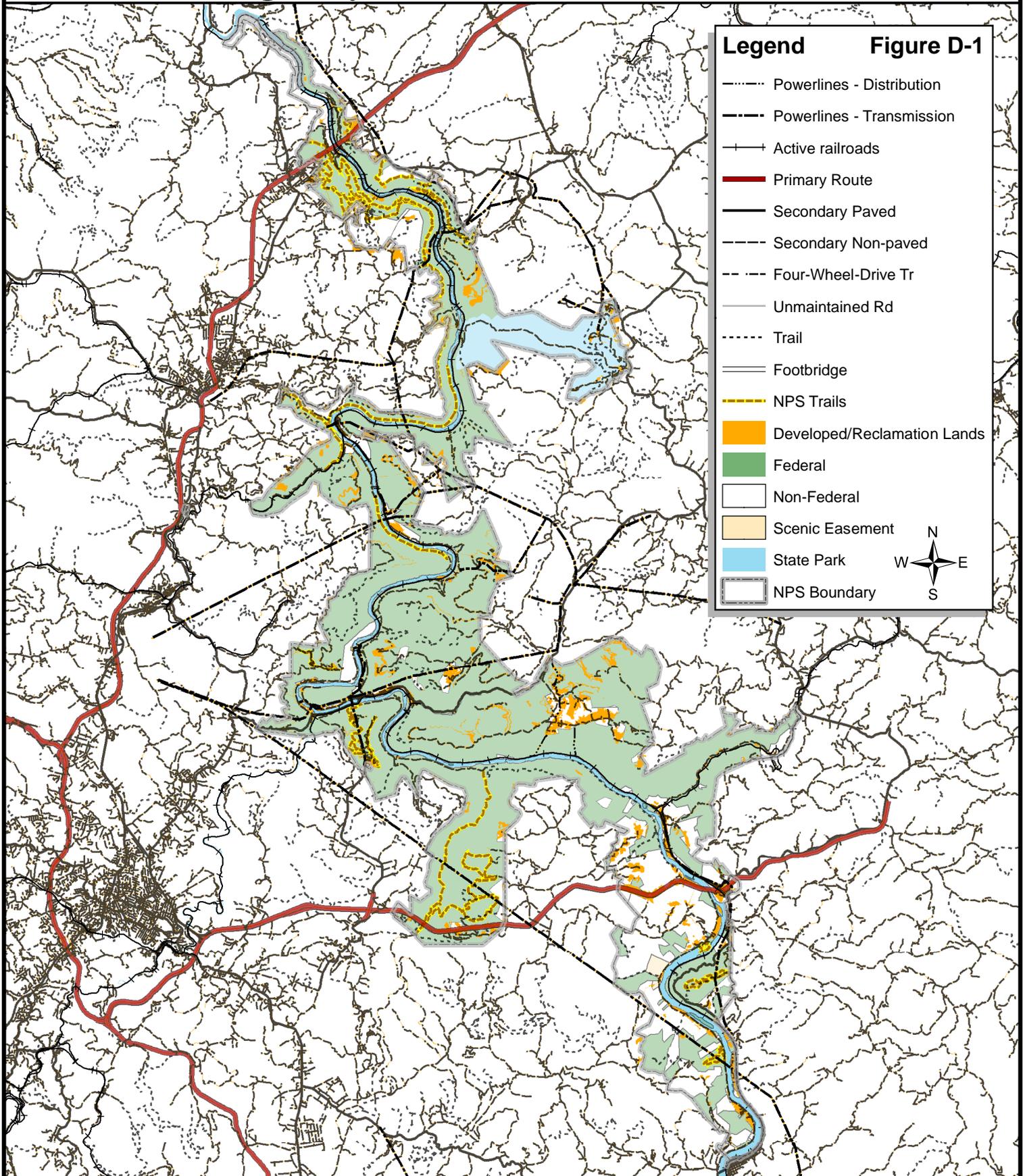
6/25/09  
Date

cc:

NER- Chief of Park Planning and Special Studies (Terry Moore)



# Wilderness Eligibility Assessment - Overview



**Legend** **Figure D-1**

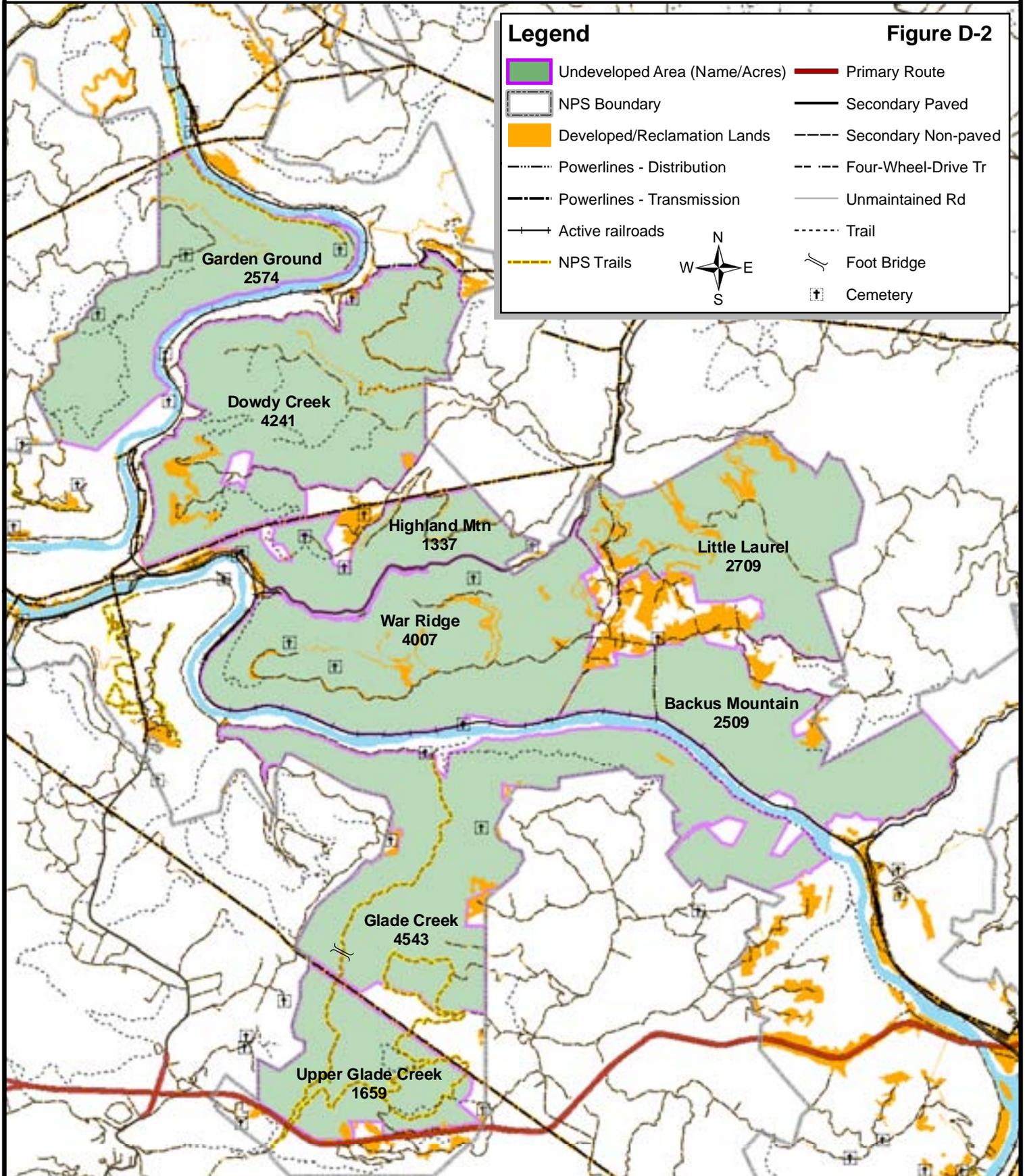
- Powerlines - Distribution
- Powerlines - Transmission
- +---+ Active railroads
- Primary Route
- Secondary Paved
- Secondary Non-paved
- - - Four-Wheel-Drive Tr
- Unmaintained Rd
- Trail
- Footbridge
- NPS Trails
- Developed/Reclamation Lands
- Federal
- Non-Federal
- Scenic Easement
- State Park
- NPS Boundary

W E  
S

0 2 4 6 8 Miles



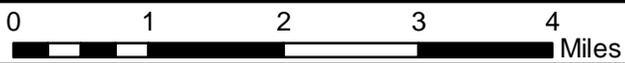
# Wilderness Eligibility Assessment - Undeveloped Areas



## Legend

Figure D-2

- |                               |                     |
|-------------------------------|---------------------|
| Undeveloped Area (Name/Acres) | Primary Route       |
| NPS Boundary                  | Secondary Paved     |
| Developed/Reclamation Lands   | Secondary Non-paved |
| Powerlines - Distribution     | Four-Wheel-Drive Tr |
| Powerlines - Transmission     | Unmaintained Rd     |
| Active railroads              | Trail               |
| NPS Trails                    | Foot Bridge         |
|                               | Cemetery            |





# Appendix E

## Boundary Adjustment Study

APPENDIX E

New River Gorge National River  
**Boundary Adjustment Study**

Table of Contents

**1.0 Introduction** ..... E-1

1.1 NPS Mandate to Evaluate Park Boundaries ..... E-1

1.2 New River Gorge National River Boundary Evaluation Process ..... E-2

**2.0 Boundary Adjustment Alternatives Considered** ..... E-2

2.1 Alternative 1 – Continuation of Current Boundary (No Action) ..... E-2

2.2 Alternative 2 – Recreation Access (Preferred Alternative) ..... E-2

2.3 Minor Deletions from the Boundary ..... E-2

**3.0 Applying NPS Boundary Adjustment Criteria** ..... E-3

3.1 Junkyard ..... E-3

3.2 Canyon Rim ..... E-4

3.3 Ambassador Buttress ..... E-5

3.4 Keeney Creek ..... E-6

3.5 Cunard ..... E-6

3.6 Dowdy Bluff ..... E-7

3.7 Polls Parking ..... E-8

**4.0 Meeting the Legislative Mandate to Protect Resources in and around the Park** ..... E-9

4.1 Legislative Mandate ..... E-9

4.2 Recent Events and Public Comment ..... E-9

4.3 Defining Areas Needing Protection around the Park ..... E-9

4.4 Working with Communities to Protect Resources around the Park ..... E-11

**List of Figures**

Figure E-1 Boundary Adjustment Alternative 1 – Continuation of Existing Management (No Action Alternative) ..... E-21

Figure E-2 Boundary Adjustment Alternative 2 – Recreation Access (Preferred Alternative) ... E-23

Figure E-3 Boundary Adjustment Alternative 2 – Junkyard, Canyon Rim, and Ambassador Buttress Parcel ..... E-25

Figure E-4 Boundary Adjustment Alternative 2 – Keeney Creek Parcel ..... E-27

Figure E-5 Boundary Adjustment Alternative 2 – Cunard Parcel ..... E-29

Figure E-6 Boundary Adjustment Alternative 2 – Dowdy Bluff Parcel ..... E-31

Figure E-7	Boundary Adjustment Alternative 2 – Polls Parcel .....	E-33
Figure E-8	Resources in and around the Park – Views from the River .....	E-35
Figure E-9	Resources in and around the Park – Other Views .....	E-37
Figure E-10	Resources in and around the Park – Important Resources .....	E-39
Figure E-11	Resources in and around the Park – Composite of Views from the River, Other Views, and Important Resources .....	E-41

**List of Tables**

Table E- 1	Analysis of Views around the Park Needing Protection .....	E-12
Table E- 2	Analysis of Important Resource Areas around the Park Needing Protection .....	E-16

## New River Gorge National River Boundary Adjustment Study

### 1.0 Introduction

#### 1.1 NPS Mandate to Evaluate Park Boundaries

- **Federal law and policy:**

In Public Law 95-625, the National Parks and Recreation Act of 1978, Congress directed that the National Park Service (NPS) consider as part of a planning process what modifications of external boundaries might be necessary to carry out park purposes. Subsequent to this act, Congress also passed Public Law 101-628, the Arizona Desert Wilderness Act. Section 1216 of this act directed the Secretary of the Interior to develop criteria to evaluate any proposed changes to the existing boundaries of individual park units.

NPS Management Policies state that boundary adjustments may be recommended to:

- protect significant resources and values, or to enhance opportunities for public enjoyment related to park purposes
- address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads
- otherwise protect park resources that are critical to fulfilling park purposes.

The NPS policies further state that all recommendations for boundary changes: 1) be feasible to administer considering size, configuration, and ownership; costs; views of and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of hazardous substances or exotic species; and 2) have determined that other alternatives for management and resource protection are not adequate.

Legislation from Congress would be required to allow for the expansion of the boundary of New River Gorge National River, and the appropriation of funds to provide for the purchase of lands within the revised boundary from willing sellers, in accordance with National Park Service policy.

- **Park Legislation, Section 1101 – Park Purpose**

The 1978 legislation established New River Gorge National River (NRG NR) *“For the purpose of conserving and interpreting outstanding natural, scenic, and historic values and objects in and around the New River Gorge (emphasis added) and preserving as a free-flowing stream an important segment of the New River in West Virginia for the benefit and enjoyment of present and future generations...”*

- **Park Legislation, Section 1104 – Cooperation with Communities to Protect Resources In and Adjacent to the Park**

This legislation also provided that the Secretary of the Interior (through his subordinate agency, the NPS) should *“assist and consult with the appropriate officials and employees of such local government in establishing zoning laws or ordinances which will assist in achieving the purposes of this title.”* Furthermore, *“the Secretary shall endeavor to obtain provisions in such zoning laws or ordinances which- (1) have the effect of restricting incompatible commercial and industrial use of all real property in or adjacent to the Gorge area (emphasis added): (2) aid in preserving the character of the Gorge area by appropriate restrictions on the use of real property in the vicinity,... and (3) have the effect of providing that the Secretary shall receive advance notice of any hearing for the purpose of granting a*

*variance and any variance granted under, and of any exception made to, the application of such law or ordinance.”*

Thus, Congress clearly intended that local officials (county commissions and town councils) work with the NPS to protect the outstanding values “in and around the New River Gorge” by establishing appropriate land use restrictions.

## **1.2 New River Gorge National River Boundary Evaluation Process**

Based on input from field staff and comments received from the public during the GMP process, NPS staff identified areas where recreational access is needed by rock climbers, hikers, hunters, bicyclists, fishermen, horseback riders, etc. Primarily these areas would provide better vehicle parking at trailheads and in some locations, the opportunity to develop new primitive campgrounds.

## **2.0 Boundary Adjustment Alternatives Considered**

### **2.1 Alternative 1 – Continuation of Current Boundary (No Action) (Figure E-1)**

This alternative is a continuation of existing conditions; the NRGNR boundary would remain unchanged. It is included as a baseline against which to measure the other alternatives.

### **2.2 Alternative 2 – Recreation Access (Preferred Alternative) (Figure E-2)**

This alternative adds six areas to the existing boundary, all of which provide improved access to recreational sites. Primarily, these provide parking areas where none currently exist, and/ or where visitors are parking along roads or on private property. The six areas are:

- Junkyard
- Ambassador Buttress
- Keeney Creek
- Cunard
- Dowdy Bluff
- Polls Parking

### **2.3 Minor Deletions from the Boundary**

In recent years, the NPS staff has identified three areas where it would be appropriate to delete certain privately owned lands from the park. Although rare, existing conditions on private lands within the boundary or survey/mapping errors occasionally create extremely difficult operational problems that are best resolved via deletion. Three such areas have been identified; a brief explanation for deleting each area is provided below:

- **City of Fayetteville** (one parcel of 37 acres)

The City of Fayetteville maintains a water treatment plant along House Creek, on the southern end of this parcel. On the northern section of this parcel, the City is constructing a ‘free-ride’ park for bicycling enthusiasts. Through the middle of this parcel, a well-established hike/ bike trail is used as part of a trail network maintained by the NPS. The NPS plans to construct a new section of trail in this area so that the entire NPS trail network is on NPS-owned land. This deletion will result in all of the City’s land and municipal facilities being outside the NPS boundary.

- **Kaymoor Top** (one parcel of 0.4 acre)

In 2006, when the NPS was acquiring approximately 500 acres inside the current boundary, this small tract was severed from the acquisition because an adjoining landowner had created an encroachment by building two structures partly within the 500 acre tract. The NPS cannot acquire land with

encumbrances; so rather than delay or jeopardize the larger acquisition, the owner of the 500 acre tract severed 0.4 acre where the encroachment was located. This deletion will move the boundary line from its current location where it bisects the two privately owned structures to a location that coincides with NPS ownership.

- **Gatewood Road** (two adjoining parcels of 6 and 32 acres)

In 2006, when the NPS was acquiring approximately 500 acres inside the current boundary, these two tracts were severed from the acquisition. An adjoining landowner had created an encroachment on the 32 acre parcel by building a sewage treatment facility partly within the 500 acre tract. The NPS cannot acquire land with encumbrances; so rather than delay or jeopardize the larger acquisition, the owner of the 500 acre tract severed 32 acres where the encroachment was located. Removing the 6 acre parcel will correct a mapping error. These two deletions (totaling 38 contiguous acres) will move the boundary line to coincide with NPS ownership.

### 3.0 Applying NPS Boundary Adjustment Criteria

Each of the six areas proposed for addition to the NPS boundary has been determined to satisfy certain criteria, to insure that there is a legitimate need to add an area to the park. These additions all propose solutions to current problems with public access to popular recreational areas within the park. A brief explanation of each problem/solution scenario and its anticipated impact on local communities is provided below.

A cost estimate is also shown for each area and it is split into two components: 1) the estimated cost to acquire the land, and 2) the administrative costs associated with purchasing each tract. For each individual landowner, the average cost for preparing an appraisal, title search, and hazardous materials survey has been estimated to be \$12,000. This cost has been multiplied by the number of individual landowners to determine a total administrative cost estimate per area.

Following is a detailed summary of the analysis for each of the six areas.

#### 3.1 Junkyard (Figure E-3)

- **To protect significant resources, values or opportunities for public enjoyment related to the purposes of the park; and/ or to address operational and management issues**

This 61-acre tract would provide much-needed vehicle parking for rock climbers accessing a popular climbing area known as Junkyard. Currently, climbers often park on road shoulders and/or trespass on private land to reach the climbing areas.

The rock climbing community has also expressed a need for camping facilities near the rim of the gorge, and this area is suitable for the development of a primitive campground. It is located adjacent to the current park boundary and just south of Burma Road in Fayette County. It is also adjacent to a residential development in Ames Heights.

- **Added lands will be feasible to administer**

**Size and configuration** – 61 acres; existing access to this tract is from public roads.

**Ownership** – Six owners, no known residential structures.

**Hazardous substances** – No hazardous materials are known or anticipated.

**Cost to acquire (estimate)** – \$200,000 (land); \$72,000 (administrative costs for 6 landowners - \$12,000 x 6), see explanation in Section 3.0.

**Views of and impacts on local communities** – Net impact on local community should be positive. Once the public has a parking facility available, parking along roads and trespassing on private property should be eliminated. If a primitive campground is developed, there is some potential for residents on adjacent properties to experience additional noise at night from vehicles entering/leaving the campground.

**Exotic species** – Any exotic plants would be removed during construction of the parking lot and/or campground.

- **Consideration of other management strategies**

Other alternatives, such as the continuation of private ownership, have been considered but do not adequately address the operational problems created when the public crosses private land to reach the Junkyard recreational area on public (NPS) land. The NPS is not aware of any non-profit organization, or other agency willing to purchase land and administer facilities for this area. Since the federal government cannot construct facilities on land it doesn't own, acquisition by the NPS is the only strategy which would resolve the parking and trespassing problem.

### 3.2 Canyon Rim (Figure E-3)

- **To protect significant resources, values or opportunities for public enjoyment related to the purposes of the park; and/ or to address operational and management issues**

This 8-acre tract would bring federally-owned property within the boundary as well as providing protection for the Canyon Rim Visitor Center.

This area is located adjacent to the current park boundary and to the West Virginia State Rt. 85/12 in Fayette County, across from the NPS Canyon Rim Visitor Center.

- **Added lands will be feasible to administer**

**Size and configuration** – 8 acres; existing access to this tract is from public roads

**Ownership** – Three owners, 1 parcel currently owned by NPS, 1 commercial structure, no known residential structures.

**Hazardous substances** – No hazardous materials are known or anticipated.

**Cost to acquire (estimate)** – \$10,000 (land); \$24,000 (administrative costs for 2 landowners - \$12,000 x 2), see explanation in Section 3.0.

**Views of and impacts on local communities** – Net impact on local community and motorists should be positive.

**Exotic species** – Any exotic plants would be removed during construction or restoration.

**Other factors** – NPS currently owns 5 acres of this parcel. Bringing these parcels in will cleanup boundary lines and make the area more manageable.

- **Consideration of other management strategies**

Other alternatives, such as the continuation of private ownership, have been considered but do not adequately address the operational problems created when the public crosses private land to reach the Ambassador Buttress and Fern Buttress recreational areas on public (NPS) land. The NPS is not aware of any non-profit organization, or other agency willing to purchase land and administer facilities for this area. Since the federal government cannot construct facilities on land it doesn't own,

acquisition by the NPS is the only strategy which would resolve the parking, trespassing and obstruction of interpretive sign problems.

### 3.3 Ambassador Buttress (Figure E-3)

- **To protect significant resources, values or opportunities for public enjoyment related to the purposes of the park; and/ or to address operational and management issues**

This 13-acre tract would provide much-needed vehicle parking for rock climbers accessing two popular climbing areas known as Ambassador Buttress and Fern Buttress. Currently, the climbers park on road shoulders and/or trespass on private land to reach the climbing areas. In addition, their parked vehicles often block an interpretive sign about the area's coal heritage from the view of motorists on the Fayette Station Road.

This area is located adjacent to the current park boundary and to the Fayette Station Road (Rt. 82) in Fayette County, east of the NPS Canyon Rim Visitor Center.

- **Added lands will be feasible to administer**

**Size and configuration** – 13 acres; existing access to this tract is from public roads.

**Ownership** – Six owners, no known residential structures.

**Hazardous substances** – No hazardous materials are known or anticipated.

**Cost to acquire (estimate)** – \$20,000 (land); \$72,000 (administrative costs for 6 landowners - \$12,000 x 6), see explanation in Section 3.0.

**Views of and impacts on local communities** – Net impact on local community and motorists should be positive. Once the public has a parking facility available, parking along roads and trespassing on private property should be eliminated.

**Exotic species** – Any exotic plants would be removed during construction of the parking facility.

**Other factors** - The Fayette Station Road is a steep, narrow, one-way road that is heavily traveled by commercial outfitter buses and private vehicles. The road has been designated a spur of the National Coal Heritage Highway, and a brochure available at the Canyon Rim Visitor Center guides motorists from sign to sign on the road, explaining the history of the area. Eliminating vehicles parking along the roadside will improve public safety and enjoyment of this historic route.

- **Consideration of other management strategies**

Other alternatives, such as the continuation of private ownership, have been considered but do not adequately address the operational problems created when the public crosses private land to reach the Ambassador Buttress and Fern Buttress recreational areas on public (NPS) land. The NPS is not aware of any non-profit organization, or other agency willing to purchase land and administer facilities for this area. Since the federal government cannot construct facilities on land it doesn't own, acquisition by the NPS is the only strategy which would resolve the parking, trespassing and obstruction of interpretive sign problems.

### 3.4 Keeney Creek (Figure E-4)

- **To protect significant resources, values or opportunities for public enjoyment related to the purposes of the park; and/ or to address operational and management issues**

This 34-acre tract would protect the top two trestles of the Keeney Creek rail grade, and provide a much-needed trailhead and parking area for hikers and bicyclists using trails into the Nuttallburg area. Currently, visitors park on private land at the beginning (top end) of the rail grade.

This area is located adjacent to the current park boundary near Winona in Fayette County.

- **Added lands will be feasible to administer**

**Size and configuration** – 34 acres; existing access to this tract is from public roads.

**Ownership** – Two owners, no known residential structures.

**Hazardous substances** – No hazardous materials are known or anticipated.

**Cost to acquire (estimate)** – \$35,000 (land); \$24,000 (administrative costs for 2 landowners - \$12,000 x 2), see explanation in Section 3.0.

**Views of and impacts on local communities** – Net impact on local community and motorists should be positive. Once the public has a parking facility available, parking along roads and on private property should be eliminated.

**Exotic species** – Any exotic plants would be removed during construction of the parking facility.

- **Consideration of other management strategies**

Other alternatives, such as the continuation of private ownership, have been considered but do not adequately address the operational problems created when the public crosses private land to reach the Keeney Creek recreational area on public (NPS) land. The NPS is not aware of any non-profit organization, or other agency willing to purchase land and administer facilities for this area. Since the federal government cannot construct facilities on land it doesn't own, acquisition by the NPS is the only strategy which would resolve the parking and trespassing problem.

### 3.5 Cunard (Figure E-5)

- **To protect significant resources, values or opportunities for public enjoyment related to the purposes of the park; and/ or to address operational and management issues**

This 10-acre tract would provide satellite parking for private boaters to utilize a shuttle system and reduce vehicle congestion at the Cunard launch. Currently, major vehicle congestion occurs at the NPS river launch site when the number of non-commercial boater vehicles exceeds the available parking spaces. Commercial buses may also use this parking lot as a staging area to wait in until they are dispatched to pick up customers, which would further reduce vehicle congestion at the river launch.

This property is located adjacent to the current park boundary at the upper end of the NPS road to the Cunard river launch in Fayette County.

- **Added lands will be feasible to administer**

**Size and configuration** – 10 acres; existing access to this tract is from public roads.

**Ownership** – One owner, one known residential structure.

**Hazardous substances** – No hazardous materials are known or anticipated.

**Cost to acquire (estimate)** – \$15,000 (land); \$12,000 (administrative costs), see explanation in Section 3.0.

**Views of and impacts on local communities** – Net impact on local community will be the additional noise created by vehicles coming and going from the shuttle parking lot during the busiest days (Saturday and Sunday). However, on these same days there is already heavy bus traffic by the commercial river outfitters in and out of the Cunard community. The majority of the time this parking area would probably receive light use, because the shuttle system may only need to operate on weekends. In addition, this location is out of sight from the majority of the residences in the Cunard community.

**Exotic species** – Any exotic plants would be removed during construction of the parking facility.

- **Consideration of other management strategies**

Other alternatives, such as the continuation of private ownership, have been considered but do not adequately address the need to provide a public shuttle system to alleviate vehicle congestion at the Cunard river launch. The NPS is not aware of any non-profit organization, or other agency willing to purchase land and administer a shuttle system for this area. Since the federal government cannot construct facilities on land it doesn't own, acquisition by the NPS is the only strategy which would resolve the vehicle congestion problem at Cunard.

### 3.6 Dowdy Bluff (Figure E-6)

- **To protect significant resources, values or opportunities for public enjoyment related to the purposes of the park; and/ or to address operational and management issues**

This 92-acre tract would provide much-needed parking and trail access for hunters and backcountry users along the ridge between Dowdy and Slater Creeks. The only public access (Route 41/12) to an 1100-acre plateau inside the park with popular hunting and backcountry lands passes through this tract.

There is also a need for a designated camping area to serve hunters and backcountry users in this part of the park and this area is suitable for the location of a primitive campground. It is located adjacent to the current park boundary and Route 41/12 in the Highland Mountain area of Fayette County.

This area also would increase protection of Dowdy Creek, a high quality stream in the most pristine watershed in the park.

- **Added lands will be feasible to administer**

**Size and configuration** – 92 acres; existing access to this tract is from public roads.

**Ownership** – One owner, no known residential structures.

**Hazardous substances** – No hazardous materials are known or anticipated.

**Cost to acquire (estimate)** – \$100,000 (land); \$12,000 (administrative costs), see explanation in Section 3.0.

**Views of and impacts on local communities** – Net impact on local community should be positive. Once the public has a parking facility available, parking along roads and trespassing on private property should be eliminated.

**Exotic species** – Any exotic plants would be removed during construction of the parking facility.

- **Consideration of other management strategies**

Other alternatives, such as the continuation of private ownership, have been considered but do not adequately address the operational problems created when the public crosses private land to reach the Dowdy Bluff recreational area on public (NPS) land. The NPS is not aware of any non-profit organization, or other agency willing to purchase land and administer facilities for this area. Since the federal government cannot construct facilities on land it doesn't own, acquisition by the NPS is the only strategy which would resolve the parking and trespassing problem.

### 3.7 Polls Parking (Figure E-7)

- **To protect significant resources, values or opportunities for public enjoyment related to the purposes of the park; and/ or to address operational and management issues**

This 4.2-acre tract would provide much-needed parking for hunters and hikers using the Kates Branch – Polls Plateau trail network. Currently, visitors are parking on the road shoulder or on private property. They are also trespassing as they cross private property to reach NPS property in this area.

It is located on the north side of Polls Branch Road (Rt. 27/9) in Raleigh County.

- **Added lands will be feasible to administer**

**Size and configuration** – 4.2 acres; existing access to this tract is from public roads.

**Ownership** – Two owners, no known residential structures.

**Hazardous substances** – No hazardous materials are known or anticipated.

**Cost to acquire (estimate)** – \$16,800 (land); \$24,000 (administrative costs), see explanation in Section 3.0.

**Views of and impacts on local communities** – Net impact on local community should be positive. Once the public has a parking facility available, parking along roads and trespassing on private property should be eliminated.

**Exotic species** – Any exotic plants would be removed during construction of the parking facility.

- **Consideration of other management strategies**

Other alternatives, such as the continuation of private ownership, have been considered but do not adequately address the operational problems created when the public crosses private land to reach the Polls Plateau – Kates Branch trail network on public (NPS) land. The NPS is not aware of any non-profit organization, or other agency willing to purchase land and administer facilities for this area. Since the federal government cannot construct facilities on land it doesn't own, acquisition by the NPS is the only strategy which would resolve the parking and trespassing problem.

## 4.0 Meeting the Legislative Mandate to Protect Resources in and around the Park

### 4.1 Legislative Mandate

In 1978, Congress clearly intended that local officials (county commissions and town councils) work with the NPS to protect the outstanding values “*in and around the New River Gorge*” (see 1.1.1 and 1.1.2). By establishing appropriate land use restrictions on areas outside, but near the park boundary, more lands could remain in private ownership but still “aid in preserving the character of the Gorge area...” Thus, Congress mandated that the NPS role is to advise local officials which areas outside the boundary need protection, and it is the role of local officials is to protect those areas.

### 4.2 Recent Events and Public Comment

Almost thirty years later, public comments received during the GMP scoping process in 2006 affirmed the need to protect areas around the Gorge. Many voiced concerns that views from the park were increasingly threatened as local authorities re-zoned areas along and near the boundary of the park to allow housing developments. Some comments suggested expanding the current boundary as a way to achieve protection of the park’s scenic qualities.

Others noted that better (expanded) watershed protection for many of the New River’s tributaries would improve local water quality, rated the most important issue by persons participating the GMP scoping process.

New scientific information about the importance of preserving large blocks of unfragmented forest, the existence of rare plant communities, and the habitat needs of threatened and endangered species were additional reasons given for increasing the lands within the park.

However, rather than expand the boundary of New River Gorge National River (except for the 211 acres identified for improved recreational access, see 2.2 and 3.0), the NPS is proposing that local authorities and the NPS cooperate to fulfill the intent of the 1978 Congressional mandate. By updating or creating county and municipal planning processes to ensure the protections envisioned by Congress and requested in recent public comments, thousands of acres can remain in private ownership. There are a variety of methods which local officials (and private landowners) could use to achieve protection. Examples include land use restrictions, such as zoning for various building densities, and scenic or conservation easements held by land trust organizations.

Such a cooperative effort can also enhance property values, the quality of life for area residents, and the marketability of the New River Gorge region as a tourism destination. Re-zoning to allow new housing developments near the rim of the Gorge (mentioned above) has underscored the vulnerability of its reputation and potential to become a top-notch tourism destination. Protecting the qualities expected in a unit of the national park system will contribute to the sustainability of the area’s tourism economy. (Local tourism bureaus can only tout superlative scenic views if such views actually exist.)

### 4.3 Defining Areas Needing Protection around the Park

To assist local officials with identifying which lands are important to protect the outstanding values “in and around the New River Gorge,” NPS resource specialists analyzed watershed data, watershed boundaries, the habitat needs of rare and threatened species, and the location of other important resources, such as rare plant communities. Based on those analyses, areas adjacent to the current boundary were identified and mapped to protect the following three categories: 1) views from the river, 2) other views, and 3) important resource areas.

- **Views from the River (Figure E-8 and Table E-1)**

**Rationale:** Protection of views from the river would ensure that a major component of a fundamental park value, its scenery, would be preserved. Because the New River itself serves as a ‘platform’ for

viewing by visitors fishing, paddling, picnicking, hunting and camping, preserving the river corridor's viewshed is integral to any long term protection strategy for the park.

Recreational opportunities in the New River Gorge are surrounded by superlative scenery, and this has contributed to the region's growing reputation as a high quality tourism destination. It is one of the reasons the area was designated a unit of the National Park System, and why many travelers seek areas within the System for recreational pursuits.

In 2004, an NPS survey of visitors to New River Gorge National River found that sightseeing was the most common activity (55%), followed closely by hiking/walking (53%). When those visitors rated the importance of selected park resources, they attributed the highest combined proportional scores (of "extremely important" and "very important") to natural setting (92%), scenic views (91%) and water quality (85%). To ensure that visitors continue to find the New River Gorge worthy of its designation as a unit of the National Park System, the river corridor viewshed must be protected.

**Identification Methodology:** Identification of Views from the River was accomplished by utilizing ArcMap GIS software with Spatial Analyst extension. Both river banks of the New River within the current boundary and a 10 meter digital elevation model were selected as the basis for view perspective in this analysis. The software was used to run a standard 360 degree view from each vertex along both river banks. Areas the software identified as both visible from the river and adjacent to the current boundary were selected and mapped as the private lands where various protection strategies are needed to protect Views from the River (see Figure E-8).

- **Other Views (Figure E-9 and Table E-1)**

**Rationale:** Protection of views from points other than at river level would ensure that a major component of a fundamental park value, its scenery, would be preserved. These are locations from which people at visitor centers, roadside pullouts, trail overlooks and rock outcroppings may enjoy a variety of expansive vistas while hiking, hunting, rock climbing, mountain biking, bird watching, or driving. Preserving these views is critical to any long term protection strategy for the park.

Recreational opportunities in the New River Gorge are surrounded by superlative scenery, and this has contributed to the region's growing reputation as a high quality tourism destination. It is one of the reasons the area was designated a unit of the National Park System, and why many travelers seek areas within the System for recreational pursuits.

In 2004, an NPS survey of visitors to New River Gorge National River found that sightseeing was their most common activity (55%), followed closely by hiking/walking (53%). When those visitors rated the importance of selected park resources, they attributed the highest combined proportional scores (of "extremely important" and "very important") to natural setting (92%), scenic views (91%) and water quality (85%). To ensure that visitors continue to find the New River Gorge worthy of its designation as a unit of the National Park System, the river corridor viewshed must be protected.

**Identification Methodology:** Identification of Other Views was accomplished by utilizing ArcMap GIS software with Spatial Analyst extension. Developed overlooks, other popular vantage points, trails with overlooks, and gorge views within the current boundary and a ten meter digital elevation model were selected as the basis for view perspective in this analysis. The software was used to run a standard 360 degree view from each point and vertex along these lines. Areas the software identified as visible from at least two vantage points and adjacent to the current boundary were selected and mapped as the private lands where various protection strategies are needed to protect the park's Other Views (see Figure E-9).

- **Important Resources (Figure E-10 and Table E-2)**

**Rationale:** Certain protection strategies for private lands adjacent to the current park boundary would improve the status of fundamental park resources. The park lies at the core of a globally significant forest, and its largely unfragmented condition provides essential habitat for endangered mammals and rare birds and amphibians. Much of the private land adjacent to the park is an extension of that forest; protecting additional unfragmented blocks wherever possible would provide

long term benefits to many species by enlarging areas available for their hunting, foraging, breeding and nesting activities.

Many of the park's smaller watersheds are only partly within the boundary, thus they are lacking long term protection from impacts that might occur from current, planned, or future residential or commercial developments. By protecting the upper reaches of certain high quality streams, the water quality and ecological integrity of these watersheds could at least avoid additional compromise and may be able to improve. Pollutants and sediment run-off often accompany construction, inadequate sewage treatment and unregulated land use practices such as logging and mining.

Some adjacent lands abut areas within the existing boundary that have high biological value. Protection strategies for these adjacent lands would extend the expanse and integrity of these high value areas. (Example: not allowing high density development in areas adjoining a rare plant community will present fewer threats to the health and stability of that plant community.) High biological value was defined based on the density of rare plant and animal species and the presence of rare and/or sensitive plant communities.

**Identification Methodology:** Identification of Important Resource Areas was done using a large volume of spatial data depicting natural resource inventory and monitoring information. Data sets included drainage basins and watershed divides, a recently completed high-resolution vegetation community map, and derived maps noting spatial distribution of documented presence of rare (including Federally listed) species.

Areas outside but adjacent to the boundary were identified for the protection of Important Resources if they met at least one of the following criteria: 1) large tracts of unfragmented forest; 2) upper reaches of watersheds with high quality streams; and 3) areas of high biological value.

- **Combined Resources around the Park (Figure E-11 and Table E-2)**

Figure E-11 and Table E-2 combine the areas that are needed to preserve river views, other views, and important resources areas. Combined these areas illustrate the total area where protection for any purpose is needed to preserve the nationally significant character of the park and its fundamental resources

#### 4.4 Working with Communities to Protect Resources around the Park

Local authorities (county commissions and town councils) and the NPS should seek to fulfill the intent of the 1978 Congressional mandate (Sections 1.1.1 and 1.1.2) by pursuing a cooperative strategy. Updating or creating county and municipal planning processes to insure the protections envisioned by Congress and requested in recent public comments can result in thousands of acres remaining in private ownership. There are a variety of actions which the NPS could pursue with local officials and private landowners to achieve that goal. Examples include land use restrictions, such as zoning for various building densities, and scenic or conservation easements held by land trust organizations.

Such a cooperative effort can also enhance property values, the quality of life for area residents, and the marketability of the New River Gorge region as a tourism destination. Re-zoning to allow new housing developments near the rim of the Gorge has underscored the vulnerability of its reputation and potential to become a top-notch tourism destination. Protecting the qualities expected in a unit of the national park system will contribute to the sustainability of the area's tourism economy.

If local officials and the NPS determine that a community planner would be important in coordinating efforts, the NPS would seek funding to hire the position. A planner could also help local authorities pursue grants and establish contacts with organizations that acquire scenic or conservation easements on private lands.

**TABLE E-1. Analysis of Views around the Park Needing Protection**

Map No.	Approximate Acreage	Approximate # of Tax Parcels	Primary Existing Land Uses	Existing Zoning (if any)
<b>Views from the River</b>				
1	10	1	forest	LC 1
2	10	10	residential	LC 1
3	15	8	forest,, cemetery, 1 house	LC 1, RR
4	5	3	forest, 1 house +	RR
5	55	23	forest, residential	RR
6	57	1	forest	LC 1
7	31	2	forest, proposed housing development	RR w/ PUD
8	171	3	forest, proposed housing development	RR w/ PUD
9	337	1	forest, proposed housing development	RR w/ PUD
10	258	13	forest, proposed housing development	RR w/ PUD, LC 1, RR
11	2	1	managed timber	LC 1
12	324	5	forest	LC 1
13	63	1	forest	LC 1
14	146	2	forest	LC 1
15	124	2	forest	LC 1
16	23	1	forest	LC 1
17	174	1	forest	LC 1
18	114	1	forest	LC 1
19	6	1	forest	LC 1
20	261	1	forest	–
21	1,138	16	forest	–
22	251	10		–
23	67	3	½ forest, ½ agriculture	–
24	523	6	forest, AML surface strip	RR
25	95	1	forest	LC 1, RR
26	4	1	forest	RR
27	2,520	86	forest, residential	–
28	832	2	forest	–
29	4	1	commercial	LC 1
30	150	29	proposed housing development	city
31	106	1	managed timber	LC 1
32	35	23	residential, proposed housing development	LC 2
33	6,723	306	forest, residential	–
34	1,115	123	forest, residential	–
35	3,425	26	forest, agriculture	–

TABLE E-1 (continued). Analysis of Views around the Park Needing Protection

Map No.	Provides Public Access	Provides Views from River	Protects Other Views	Protects Important Resources	Comments
Views from the River (continued)			○ = overlaps with additional areas in the park needing protection		
1	○	■	○		
2		■	○	○ w/G	
3		■	○	○ w/G	
4		■	○	○ w/G	stretches from Beauty Mountain to Robertson tract
5		■	○		
6		■	○		
7		■	○		
8		■	○		
9		■	○		
10		■	○		
11		■	○		borders Babcock State Park
12		■	○	○ w/A	
13		■	○	○ w/A	
14		■		○ w/I	
15		■	○	○ w/A	
16		■	○	○ w/A	
17		■		○ w/L	
18		■	○	○ w/M	
19		■	○	○ w/M	
20		■	○	○ w/M	seen from Turkey Spur overlook
21		■	○	○ w/B	
22		■	○	○ w/D	
23		■	○		
24		■			
25		■		○ w/J	across from Thurmond
26		■			south side of Arbuckle watershed
27		■	○	○ w/S	
28		■	○	○ w/N&O	
29		■	○		
30		■	○		stretches for 2-3 miles along rim
31		■	○		
32	○	■	○	○ w/F	stretches for 1-2 miles along rim
33		■	○	○ w/Y	
34		■	○		
35		■	○	○ w/U	

**TABLE E-1 (continued). Analysis of Views around the Park Needing Protection**

Map No.	Approximate Acreage	Approximate # of Tax Parcels	Primary Existing Land Uses	Existing Zoning (if any)
<b>Other Views</b>				
40	112	1	forest	RR
41	575	1	forest	LC 1, RR
42	13	1	forest	LC 1
43	2,751	54	forest, residential	LC 1
44	196	2	managed timber, cemetery	LC 1
45	339	3	forest	LC 1
46	150	25	forest, residential	RR
47	7	5	residential	RR
48	24	5	forest, residential	RR
49	9	7	residential	RR
50	25	7	forest, residential	LC 1
51	23	29	proposed housing development	city of Fayetteville
52	37	6	proposed housing development	city of Fayetteville
53	27	1	forest, proposed housing development	RR w/ PUD
54	23	1	forest, proposed housing development	RR w/ PUD
58	5	1	forest	RR
59	15	1	forest	RR
60	429	20	forest, residential	LC 1
61	102	1	forest	–
62	14	1	forest	–
63	39	1	forest	–
64	479	24	rural residential/agriculture, some forest	–
65	35	1	½ forest, ½ agriculture	–
66	165	6	½ forest, ½ agriculture	–
67	111	1	forest, proposed housing development	LC 1
68	466	11	forest, residential	–
69	482	11	forest	–
70	192	36 lots sold	forest, proposed housing development	RR w/ PUD
71	44	8	some residential, some forest	LC 1
72	148	5	agriculture	RR
73	59	1	½ forest, ½ agriculture	RR
74	123	1	forest	RR
75	181	122	residential	LC 1
76	12	1	forest	–
77	363	45	forest, residential, agriculture	–
78	286	4	forest	–

TABLE E-1 (continued). Analysis of Views around the Park Needing Protection

Map No.	Provides Public Access	Provides Views from River	Protects Other Views	Protects Important Resources	Comments
Other Views (continued)			○ = overlaps with additional areas in the park needing protection		
40			■		
41	○		■	○ w/I	
42			■	○ w/IG	
43			■	○ w/A&I	most structures are seasonal use
44			■		includes Sewell cemetery
45			■	○ w/H	
46			■	○ w/G	
47			■	○ w/G	
48			■	○ w/G	
49			■	○ w/G	
50			■	○ w/G	
51			■		
52			■		
53		○	■		
54		○	■		
58			■		
59			■	○ w/J	
60			■	○ w/L&M	seen from Turkey Spur overlook
61			■	○ w/M	
62			■	○ w/M	
63			■	○ w/N	between highway and Piney Creek
64			■	○ w/D	
65			■		
66			■		
67	○		■	○ w/F	
68			■		seen from Gwinn Ridge
69			■	○ w/B	
70		○	■		36 lots are ½-acre lots
71	○		■		
72			■		
73			■		
74			■		
75	○	○	■	○ w/G	
76			■		
77			■		
78			■	○ w/T	

**TABLE E-2. Analysis of Important Resource Areas around the Park Needing Protection**

Map No.	Approximate Acreage	Approximate # of Tax Parcels	Primary Existing Land Uses	Existing Zoning (if any)
<b>Important Resource Areas</b>				
<b>A</b>	2,761	52	forest, residential	LC 1
<b>B</b>	1,446	26	Forest	
<b>D</b>	2,761	88	½ forest, ½ agricultura	
<b>E</b>	398	16	forest, agricultura	
<b>F</b>	406	33	forest, proponed housing development	LC2
<b>G</b>	5,374	636	forest, residential	RR
<b>H</b>	351	2	Forest	LC 1
<b>I</b>	4,719	38	Forest	RR, LC 1
<b>J</b>	769	15	forest	LC 1, RR
<b>K</b>	162	1	forest	RR
<b>L</b>	830	1	forest	
<b>M</b>	3,101	25	forest	¼ LC 1, 1/4 RR, ½ none (Raleigh Co)
<b>N</b>	263	1	forest	
<b>O</b>	128	1	forest	
<b>P</b>	666	12	forest	

TABLE E-2 (continued). Analysis of Important Resource Areas around the Park Needing Protection

Map No.	Provides Public Access	Provides Views from River	Protects Other Views	Protects Important Resources	Comments
<b>Important Resource Areas (continued)</b>			○ = overlaps with additional areas in the park needing protection		
A		○	○	A	A = protects upper reaches of Fire, Molly, Todd, and unnamed creek (all four are undeveloped watersheds); provides foraging habitat for listed bat species
B		○	○	B	B = expands and protects high priority unfragmented forest blocks at Glade Creek; protects river bridge of Mill creek; protects; protects rare plant and animal species and rare plant communities
D		○	○	D	D = expands and protects high priority unfragmented forest block over a range of elevations at Glade Creek; protects headwaters to tributaries of Polls Branch and Glade Creek; protects rare plant and animal species and rare plant communities
E				E*	E = expands and protects high priority unfragmented forest block; protects rare plant and animal species and rare plant communities; protects additional parts of Glade Creek watershed below Table Rock Road
F	○	○	○	F	F = expands and protects high priority unfragmented forest block; protects important habitat for rare cliff dwelling animal species and rare plant communities
G	○	○	○	G	G = protects all of Contrary and Short Creek watersheds and nearly all of Fern Creek watershed; protects high priority unfragmented forest block; protects rare plant and animal species and rare plant communities
H				H	H = expands and protects high priority unfragmented forest block; protects tributary of Keeney Creek
I	○	○	○	I	I = expands and protects high priority unfragmented forest block; protects Dowdy, Slater, and Buffalo Creek watersheds in their entirety
J		○	○	J	J = expands and protects high priority unfragmented forest block; protects rare plant communities
K				K*	K = expands and protects high priority unfragmented forest block; enhances protection of Dunloup Creek watershed by extending protection to watershed divide
L		○	○	L	L = expands and protects high priority unfragmented forest block; protects rare plant and animal species; protects all of Big and Little Creek watersheds not already within NPS boundary
M		○	○	M	M = protects underground mineral reserves that would be removed by surface removal mining, thus degrading park watersheds and viewsheds
N		○	○	N	N = expands and protects high priority unfragmented forest block; enhances protection of Batoff Creek watershed by extending protection to watershed divide
O		○	○	O	O = expands and protects high priority unfragmented forest block; protects rare plant and animal species; protects all of McCreery Hollow watershed not already within NPS boundary
P				P*	P = expands and protects high priority unfragmented forest block; protects rare plant and animal species and rare plant communities; enhances protection of Pinch Creek watershed by extending protection to watershed divide, including one entire tributary

**TABLE E-2 (continued). Analysis of Important Resource Areas around the Park Needing Protection**

Map No.	Approximate Acreage	Approximate # of Tax Parcels	Primary Existing Land Uses	Existing Zoning (if any)
<b>Important Resource Areas (continued)</b>				
<b>S</b>	990	29	forest, residential	
<b>T</b>	110	4	forest	
<b>U</b>	781	23	forest	
<b>W</b>	113	14	forest, agriculture	
<b>X</b>	47	1	forest, agriculture	
<b>Y</b>	3,455	183	forest	

TABLE E-2 (continued). Analysis of Important Resources Areas around the Park Needing Protection

Map No.	Provides Public Access	Provides Views from River	Protects Other Views	Protects Important Resources	Comments
<b>Important Resource Areas (continued)</b>			● = overlaps with additional areas in the park needing protection		
S		●	●	S	S = expands and protects high priority unfragmented forest block; enhances protection of Meadow Creek watershed by extending protection to watershed divide
T				T	T = expands and protects high priority unfragmented forest block; enhances protection of Farley Creek tributary watershed by extending protection to watershed divide
U		●	●	U	U = expands and protects high priority unfragmented forest block, enhances protection of Fall Branch watershed by extending protection to watershed divide; protects mill and Kates Branch watersheds
W				W*	W = expands and protects high priority unfragmented forest block; enhances protection for all of Big Branch watershed not already within NPS boundary
X				X*	X = expands and protects high priority unfragmented forest block; enhances protection of unnamed tributary of New River by extending protection to watershed divide
Y		●	●	Y*	Y = expands and protects high priority unfragmented forest block; protects lower reaches of Tug Creek, Brooks Branch, Collins Hollow, and Owens Branch

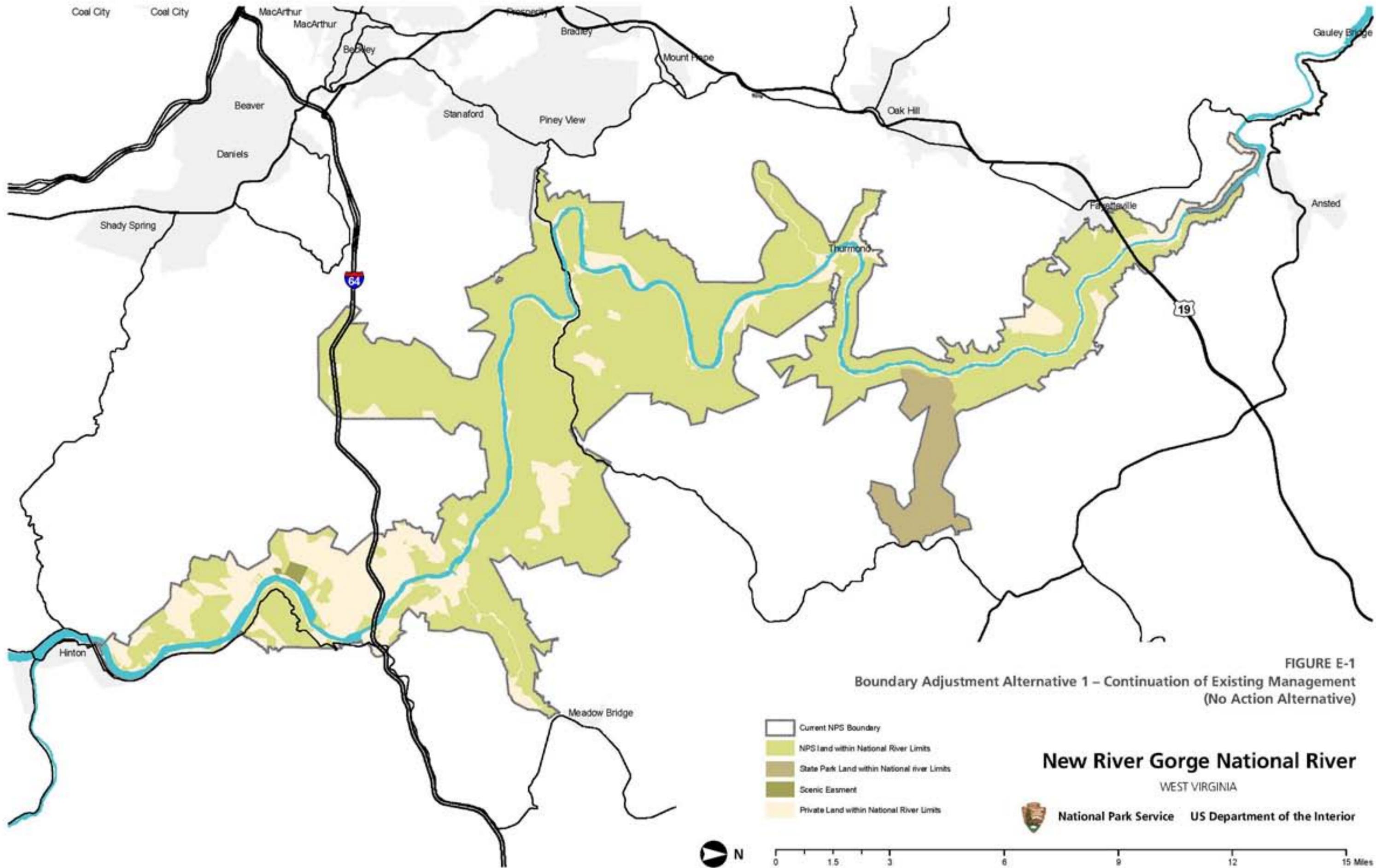


FIGURE E-1  
 Boundary Adjustment Alternative 1 – Continuation of Existing Management  
 (No Action Alternative)

**New River Gorge National River**

WEST VIRGINIA

 National Park Service US Department of the Interior

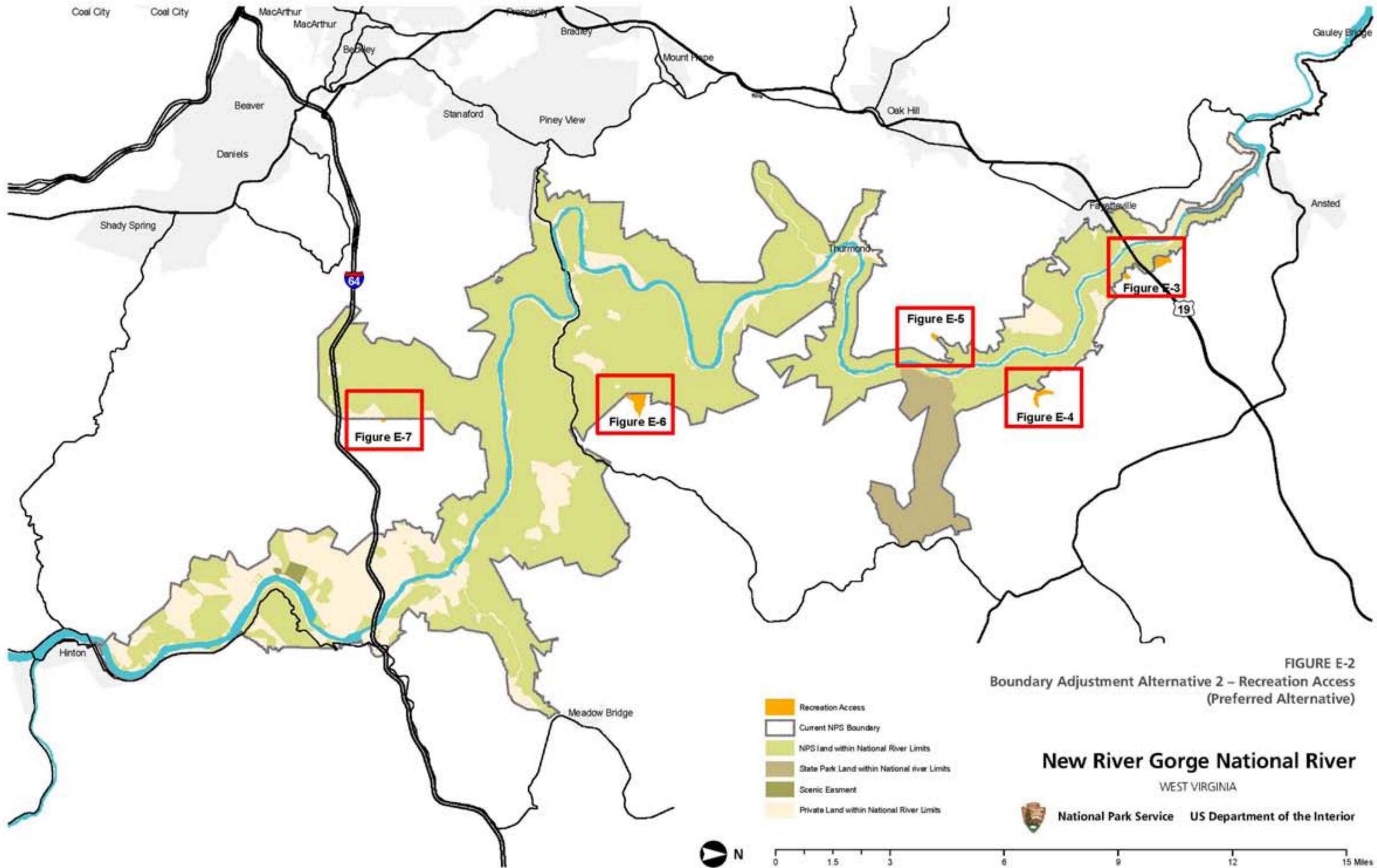
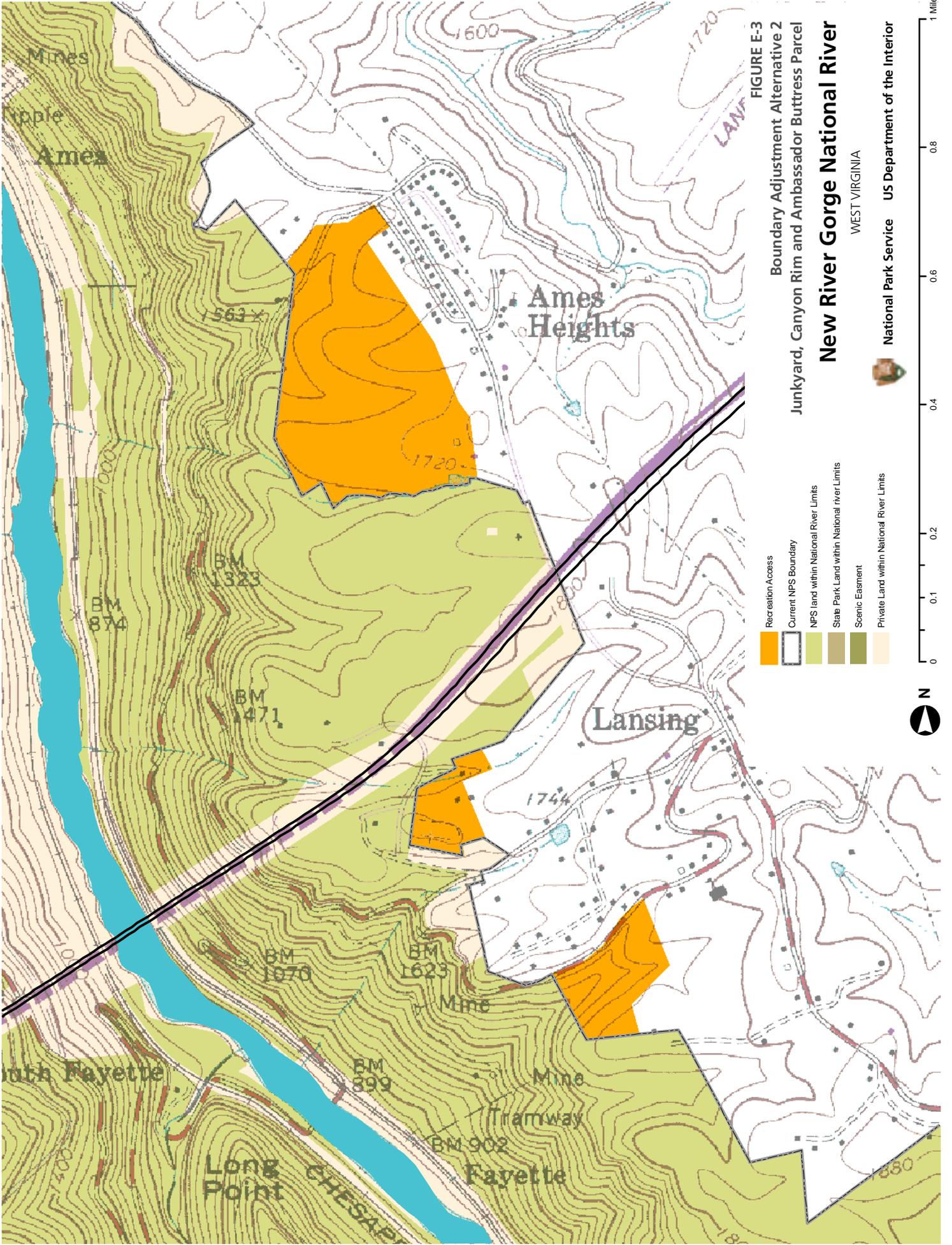


FIGURE E-2  
Boundary Adjustment Alternative 2 – Recreation Access  
(Preferred Alternative)

**New River Gorge National River**  
WEST VIRGINIA

National Park Service US Department of the Interior

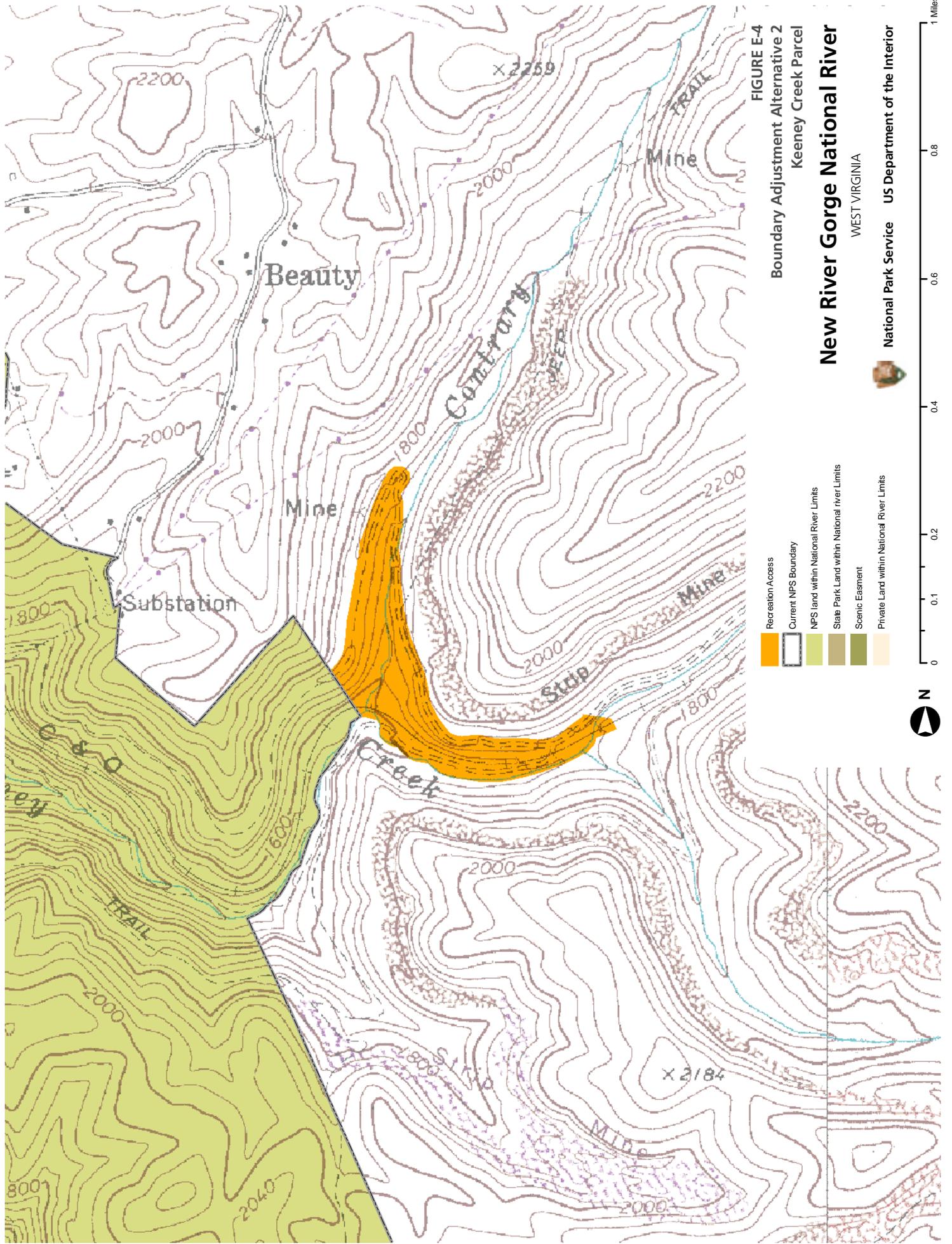




**FIGURE E-3**  
**Boundary Adjustment Alternative 2**  
**Junkyard, Canyon Rim and Ambassador Buttress Parcel**  
**New River Gorge National River**  
 WEST VIRGINIA  
 National Park Service US Department of the Interior

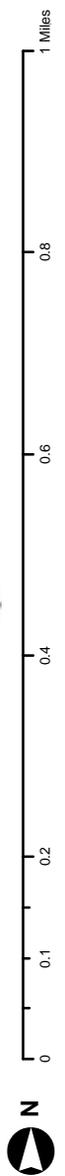
- Recreation Access
- Current NPS Boundary
- NPS land within National River Limits
- State Park Land within National River Limits
- Scenic Easement
- Private Land within National River Limits

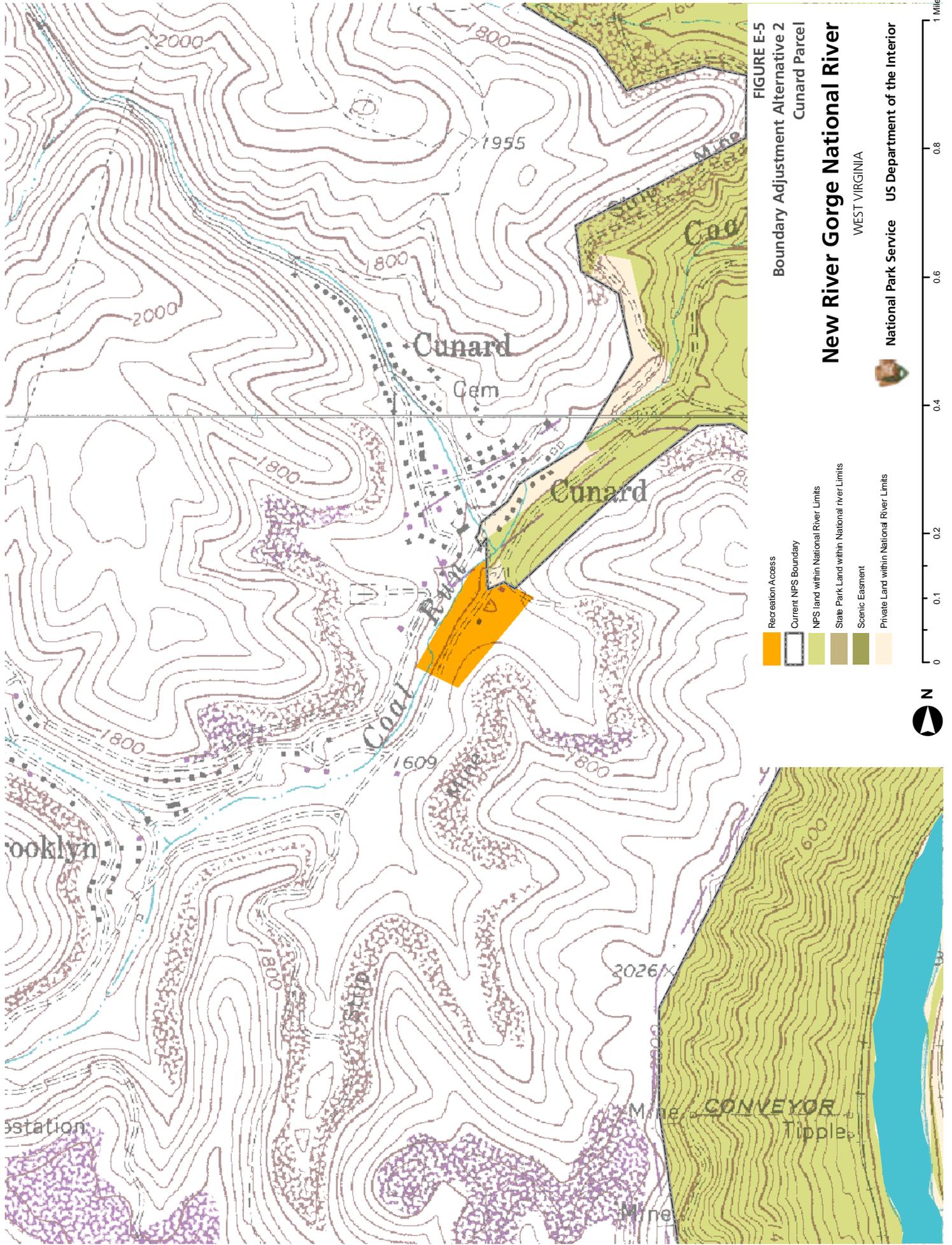




**FIGURE E-4**  
**Boundary Adjustment Alternative 2**  
 Keeney Creek Parcel

**New River Gorge National River**  
 WEST VIRGINIA  
 National Park Service US Department of the Interior





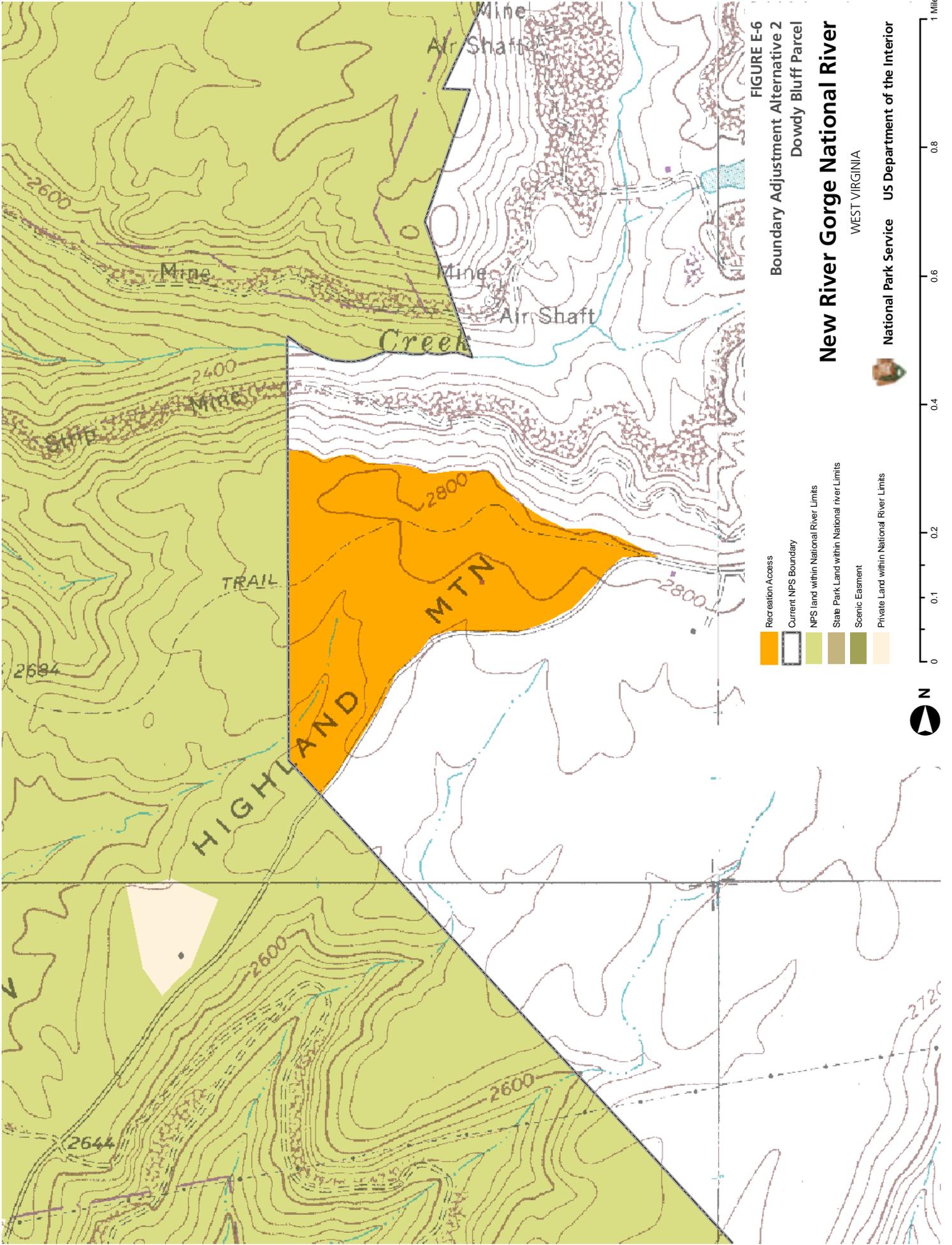
**FIGURE E-5**  
**Boundary Adjustment Alternative 2**  
**Cunard Parcel**

**New River Gorge National River**  
 WEST VIRGINIA  
 National Park Service US Department of the Interior

- Recreation Access
- Current NPS Boundary
- NPS land within National River Limits
- State Park Land within National River Limits
- Scenic Easment
- Private Land within National River Limits



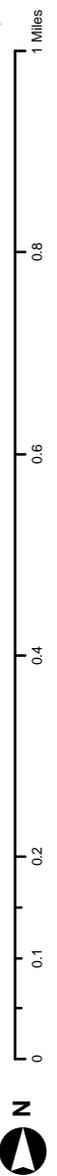
0 0.1 0.2 0.4 0.6 0.8 1 Miles

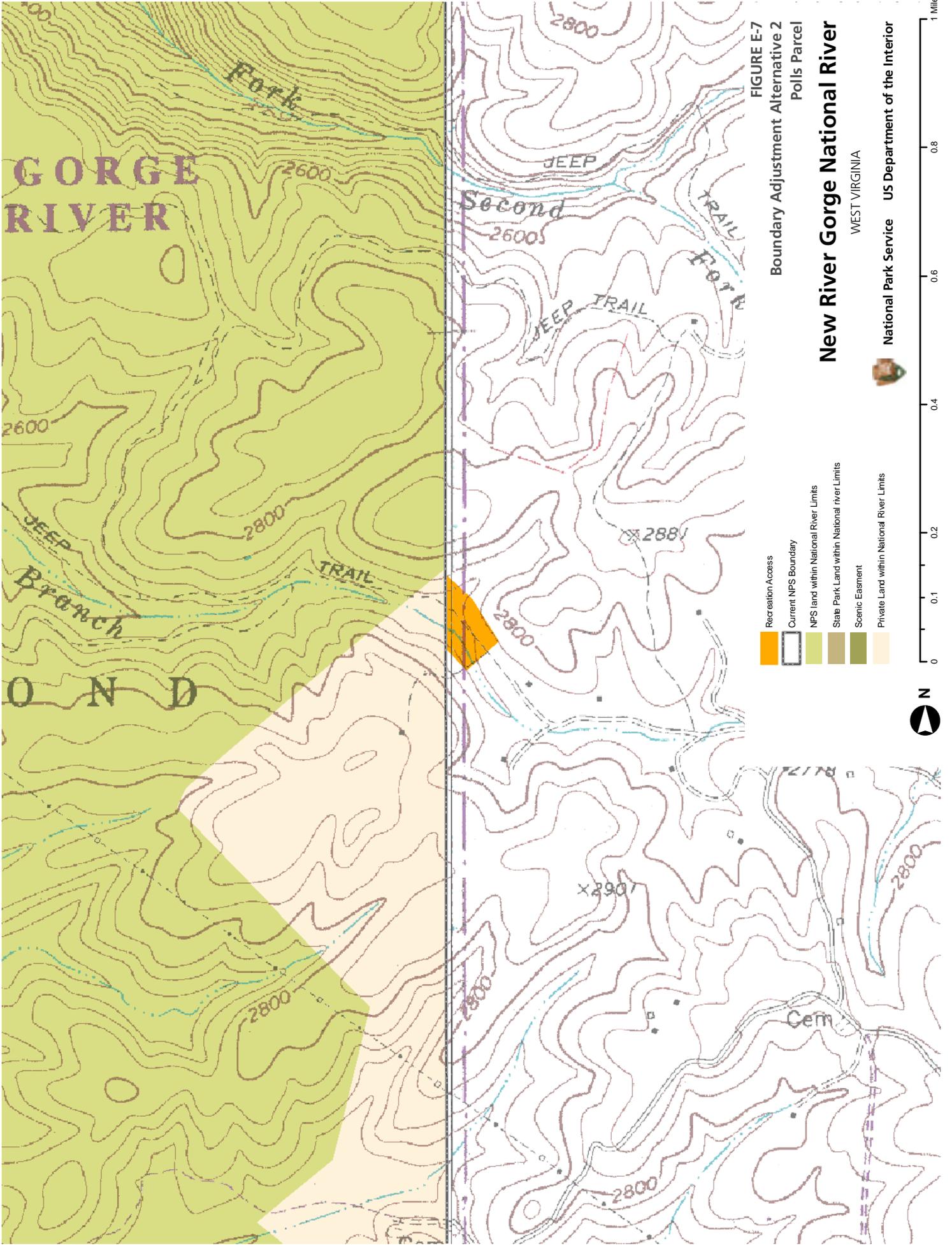


**FIGURE E-6**  
**Boundary Adjustment Alternative 2**  
**Dowdy Bluff Parcel**

-  Recreation Access
-  Current NPS Boundary
-  NPS land within National River Limits
-  State Park Land within National River Limits
-  Scenic Easment
-  Private Land within National River Limits

**New River Gorge National River**  
 WEST VIRGINIA  
 National Park Service US Department of the Interior

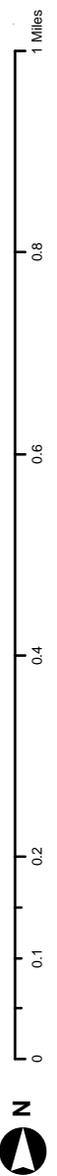


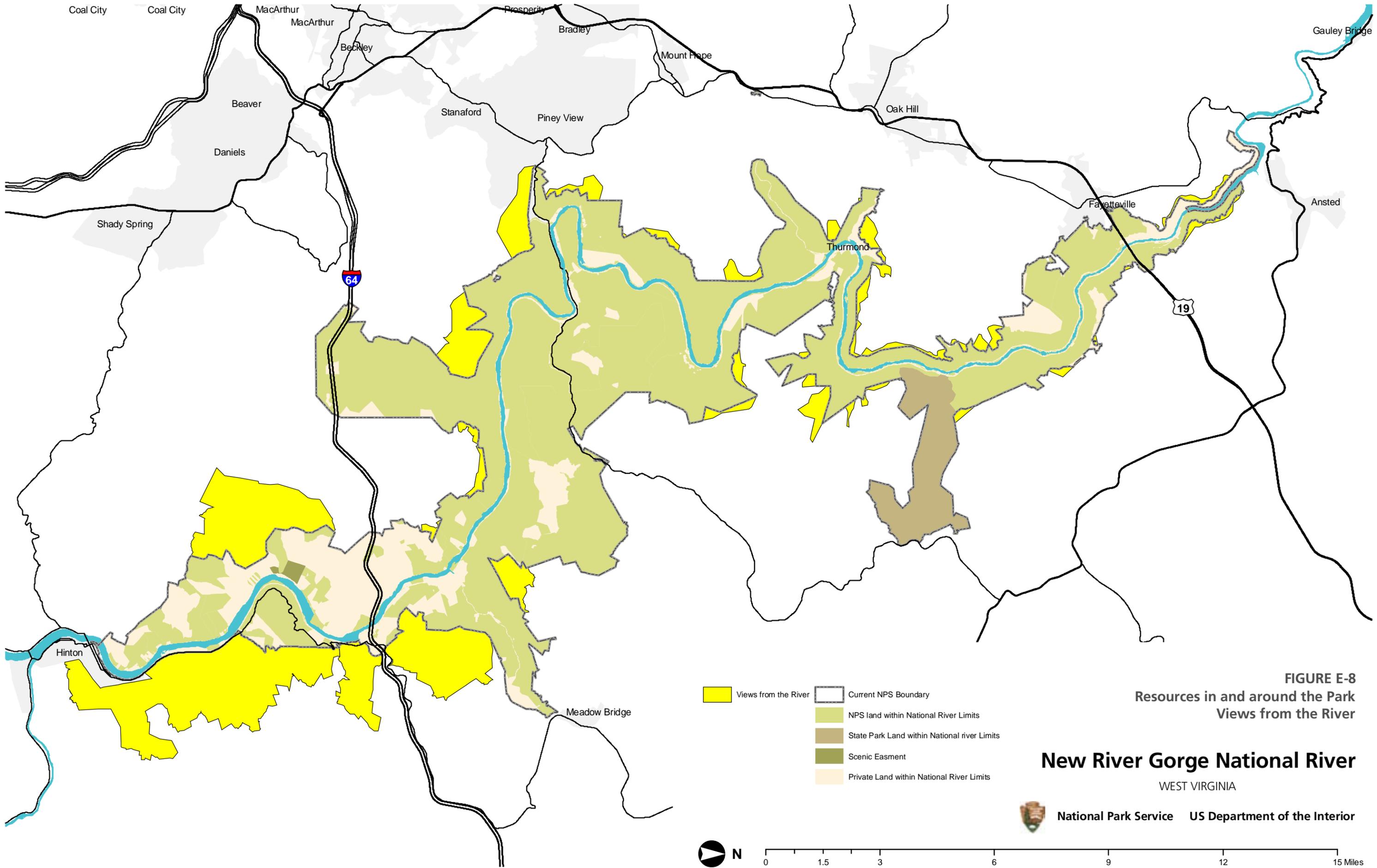


**FIGURE E-7**  
**Boundary Adjustment Alternative 2**  
**Polls Parcel**

**New River Gorge National River**  
 WEST VIRGINIA  
 National Park Service US Department of the Interior

- Recreation Access
- Current NPS Boundary
- NPS land within National River Limits
- State Park Land within National River Limits
- Scenic Easment
- Private Land within National River Limits





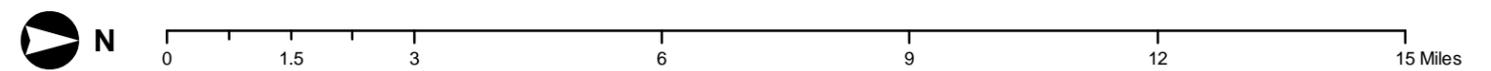
**FIGURE E-8**  
**Resources in and around the Park**  
**Views from the River**

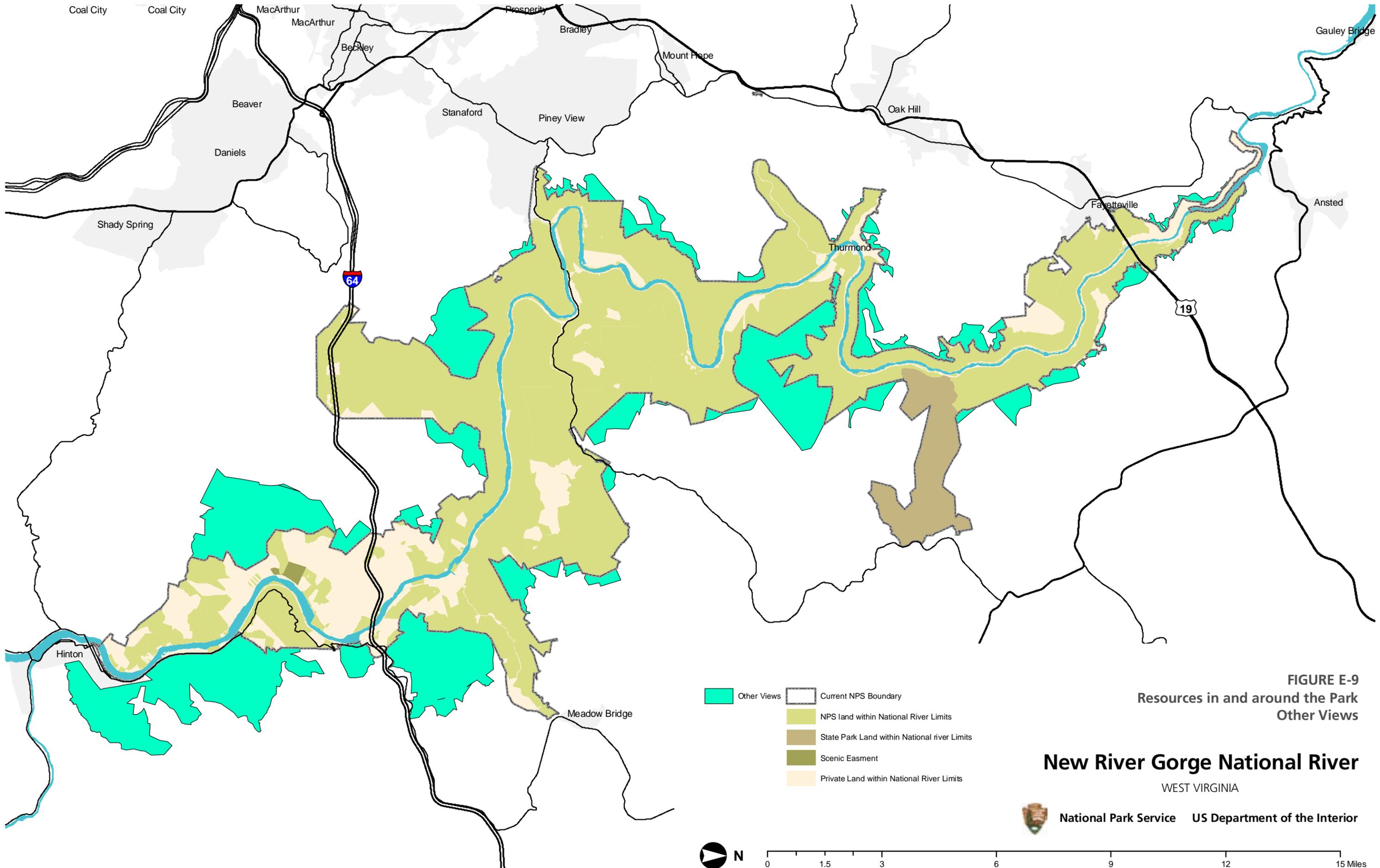
**New River Gorge National River**

WEST VIRGINIA



**National Park Service US Department of the Interior**





**FIGURE E-9**  
**Resources in and around the Park**  
**Other Views**

**New River Gorge National River**

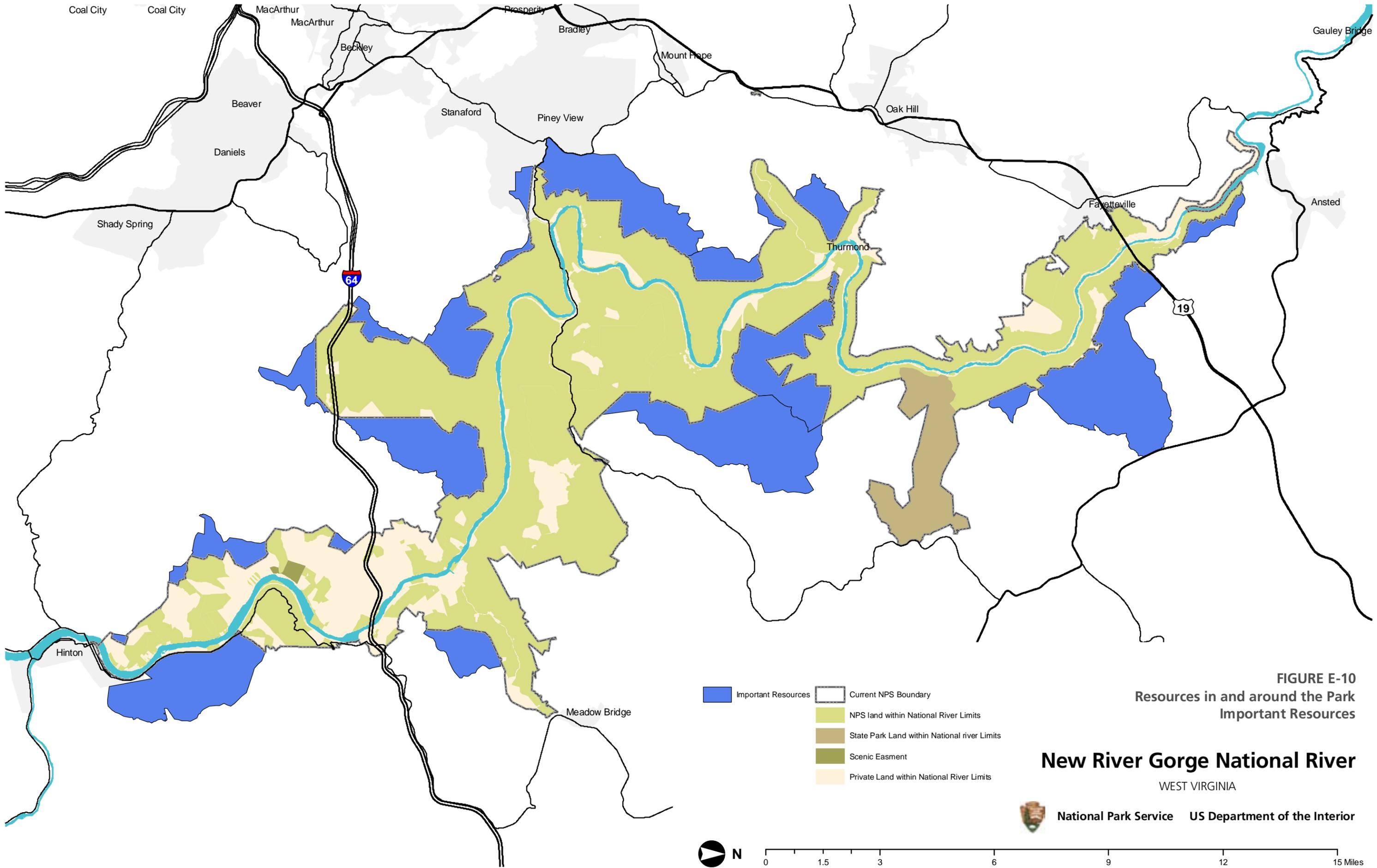
WEST VIRGINIA



**National Park Service US Department of the Interior**



0 1.5 3 6 9 12 15 Miles



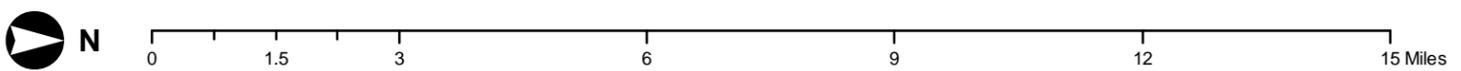
**FIGURE E-10**  
**Resources in and around the Park**  
**Important Resources**

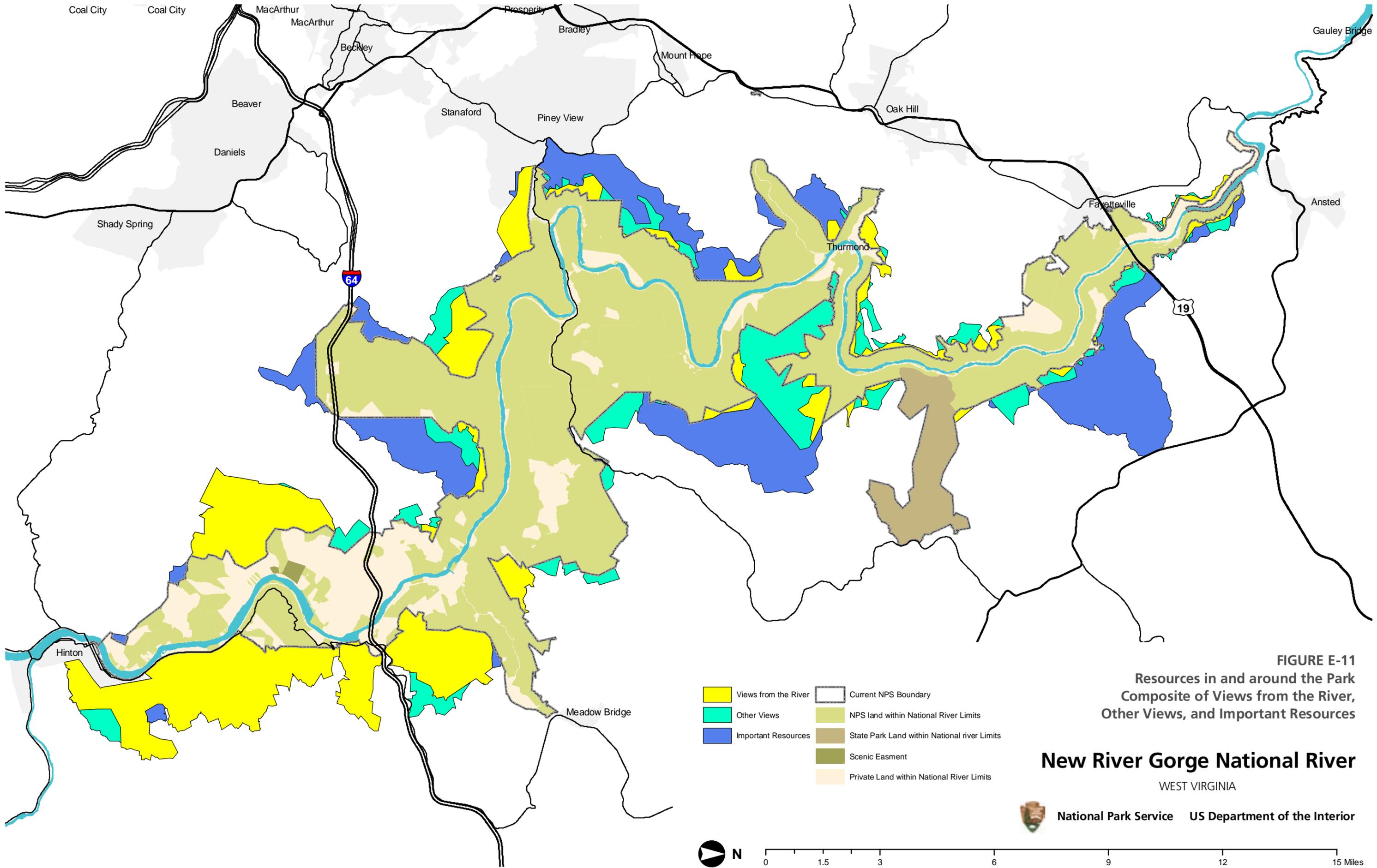
**New River Gorge National River**

WEST VIRGINIA



**National Park Service US Department of the Interior**



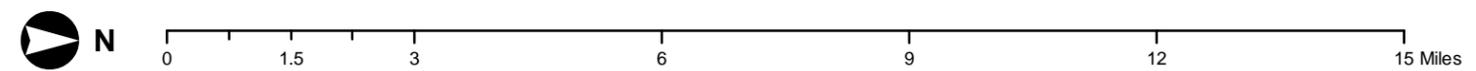


**FIGURE E-11**  
**Resources in and around the Park**  
**Composite of Views from the River,**  
**Other Views, and Important Resources**

**New River Gorge National River**  
 WEST VIRGINIA

 **National Park Service** **US Department of the Interior**

- Views from the River
- Other Views
- Important Resources
- Current NPS Boundary
- NPS land within National River Limits
- State Park Land within National river Limits
- Scenic Easment
- Private Land within National River Limits





# Appendix F Affected Environment Data Tables

## Appendix F

### Affected Environment Data Tables

- Characteristics of Predominant Soil Types ..... F-1
- Summary of Fecal Coliform Standard Exceedences in the New River and its Tributaries in the vicinity of New River Gorge National River ..... F-2
- Species of Special Concern in West Virginia Known to Exist in New River Gorge National River ..... F-4
- Roads Providing Access to Park Facilities ..... F-9

TABLE F.1 Characteristics of Predominant Soil Types

Soil Type (listed from rim to river)	Topographic Location	Depth to Bedrock	Depth to Seasonal High Water	Erodibility (1 <sup>st</sup> horizon K Factor)	Runoff Potential (hydrologic soil group)
<b>Lily loam (LIB, LIC)</b>	ridgetops and benches (gently to strongly sloping)	shallow (1½ - 3')	>6'	moderately low (0.28)	moderately low (B)
<b>Gilpin silt loam (GaB, GaC)</b>	ridgetops and benches (gently sloping)	shallow (2-3')	>6'	moderate (0.32)	moderately high (C)
<b>Calvin, high base substratum-Berks shaley silt loam (CbD, CbF)</b>	ridgetops (moderately to steeply sloping)	shallow (2-3')	>6'	moderately low (0.28)	moderately high (C)
<b>Gilpin silt loam (GIB, GIC, GID, GIE, GIF)</b>	ridgetops and mountainsides	shallow (2-3')	>3'	moderate (0.32)	moderately high (C)
<b>Dekalb fine sandy loam (DbB, DbC)</b>	ridgetops and mountainsides	shallow (1½ - 3½')	>4'	low (0.24)	moderately high (C)
<b>Calvin, high base substratum-Berks stony silt loam (CkF)</b>	side slopes (very steep)	shallow (2-3')	>6'	moderately low (0.28)	moderately high (C)
<b>Calvin-Gilpin very stony silt loam (CgF)</b>	side slopes (very steep)	shallow (1½ - 2½')	>4'	moderately low (0.28)	moderately high (C)
<b>Dekalb and Gilpin very stony soils (DsC, DsE, DsF)</b>	side slopes (steep)	shallow (1½ - 3½')	>4'	moderately low (0.28)	moderately high (C)
<b>Steep Rock Land (Sr)</b>	cliffs in New River Gorge and on mountainsides	variable	variable	variable	variable
<b>Ernest silt loam (ErB, ErC)</b>	foot slopes and along drainageways (gently to strongly sloping)	deep (>4')	1½ -3'	high (0.43)	moderately high (C)
<b>Shouns silt loam (ShC, ShD, StC)</b>	foot slopes and around the heads of drainageways (strongly sloping)	deep (>5')	>6'	low (0.24)	moderately low (B)
<b>Meckesville very stony silt loam (MdC, MdE, McB, McC)</b>	foot slopes and around the heads of drainageways (moderately to strongly sloping)	deep (>5')	>3'	moderate (0.32)	moderately high (C)
<b>Ernest and Shelocta very stony silt loam (EsC, EsE)</b>	foot slopes (strongly sloping)	deep (>4')	1½ - 2'	high (0.43)	moderately low (B/C)
<b>Kanawha fine sandy loam (Ka)</b>	low terraces and high floodplains (nearly level)	deep (>5')	>6'	low (0.24)	moderately low (B)
<b>Ashton fine sandy loam (As)</b>	high New River floodplain	deep (>5')	>6'	moderately low (0.28)	moderately low (B)
<b>Chagrín loam (Cm)</b>	New River floodplain (nearly level)	deep (>5')	4 - 6'	moderate (0.32)	moderately low (B)
<b>Alluvial Land (Ad)</b>	New River floodplain (nearly level)	deep (>5')	>6'	variable	variable
<b>Gravelly Alluvial Land (Gr)</b>	New River floodplain (nearly level)	variable	variable	variable	variable
<b>Strip Mine (St)</b>	areas where coal has been strip mined	variable	variable	variable	variable
<b>Urban Land (UeC)</b>	areas covered with urban structures (in Hinton) on foot slopes and along drainageways	deep (>5')	1½ - 3'	high (0.43)	moderately high (C)

Source: USDA 1975 and 1984

**TABLE F.2 Summary of Fecal Coliform Standard Exceedences in the New River and its Tributaries in the Vicinity of New River Gorge National River**  
*(number/percent of samples exceeding standard of 200 fecal coliform bacteria/100ml water)*

Sampling Sites Coliform Standard Exceedences	Year Monitoring Began	2001 to 2003 Samples		Exceedences of WV Standard for Contact Recreation since Monitoring Began
		Samples Exceeding WV Standard for Contact Recreation	Highest bacteria density (coliforms/100ml)	
 >25% of samples				
 >10% of samples				
New River below Bluestone Dam	2003	0 of 6 (0%)	90	0 of 6 (0%)
New River at Hinton Visitor Center	1990	2 of 16 (12.5%)	740	9 of 114 (7.9%)
New River at Brooks Falls	2001	0 of 7 (0%)	108	0 of 7 (0%)
New River above Sandstone Falls	1990	1 of 10 (10%)	1100	11 of 107 (10.3%)
New River below Sandstone Falls	1993	1 of 16 (6%)	363	9 of 84 (10.7%)
New River below Laurel Creek	2003	0 of 5 (9%)	48	0 of 5 (0%)
New River below Prince	1990	0 of 7 (0%)	135	11 of 107 (10.3%)
New River below Piney Creek	2003	0 of 5 (0%)	34	0 of 5 (0%)
New River at Thurmond	1993	2 of 13 (15%)	1880	12 of 113 (10.6%)
New River above Coal Run	1993	2 of 15 (13%)	1300	10 of 96 (10.4%)
New River above Wolf Creek	1990	3 of 15 (20%)	1400	15 of 115 (13%)
Greenbrier River at Willowhead	2003	0 of 6 (0%)	103	0 of 6 (0%)
Madam Creek	1990	16 of 16 (100%)	37000	108 of 115 (93.9%)
Lick Creek	1990	2 of 16 (12.5%)	1140	20 of 115 (17.4%)
Meadow Creek	1990	4 of 16 (25%)	1000	25 of 115 (21.7%)
Glade Creek	1995	0 of 12 (0%)	112	4 of 44 (9.1%)
Mill Creek	1994	0 of 9 (0%)	33	0 of 11 (0%)
Laurel Creek (at Quinnimont)	1990	0 of 12 (0%)	75	8 of 112 (7.1%)

**TABLE F.2 Summary of Fecal Coliform Standard Exceedences in the New River and its Tributaries in the Vicinity of New River Gorge National River** (continued)  
*(number/percent of samples exceeding standard of 200 fecal coliform bacteria/100ml water)*

Sampling Sites Coliform Standard Exceedences	Year Monitoring Began	2001 to 2003 Samples		Exceedences of WV Standard for Contact Recreation since Monitoring Began
		Samples Exceeding WV Standard for Contact Recreation	Highest bacteria density (coliforms/100ml)	
 >25% of samples				
 >10% of samples				
Piney Creek at McCreery	1990	4 of 12 (33%)	1200	37 of 113 (32.7%)
Dowdy Creek at McKendree Road	1997	0 of 6 (0%)	11	0 of 16 (0%)
Slater Creek at McKendree Road	1997	0 of 13 (0%)	121	0 of 24 (0%)
Slater Creek at Mouth	2002	0 of 7 (0%)	54	0 of 7 (0%)
Buffalo Creek at McKendree Road	1997	0 of 13 (0%)	55	0 of 23 (0%)
Claremont Mine Spring	1996	0 of 11 (0%)	2	0 of 21 (0%)
Dunloup Creek	1990	6 of 16 (37.5%)	1730	59 of 127 (46.5%)
Arbuckle Creek	1990	7 of 14 (50%)	4080	65 of 113 (57.5%)
Coal Run	1990	4 of 15 (27%)	1225	43 of 114 (37.7%)
Keeney Creek above Winona	2003	2 of 5 (40%)	4670	2 of 5 (40%)
Keeney Creek at Winona	1990	14 of 14 (100%)	10000	14 of 14 (100%)
Keeney Creek below Winona	2003	5 of 6 (83%)	1500	5 of 6 (83%)
Wolf Creek	1990	3 of 15 (20%)	2250	29 of 115 (25.2%)
Ajax Mine Spring	1995	0 of 13 (0%)	1	0 of 51 (0%)
Marr Branch	1990	7 of 14 (50%)	4600	80 of 113 (70.8%)

Source: Purvis et al. 2006

**TABLE F.3 Species of Special Concern in West Virginia Known to Occur in New River Gorge National River**

Scientific Name	Common Name	Global Rank	West Virginia Rank	Federal Rank
<b>Vascular Plants</b>				
<i>minima</i>	dwarf anemone	G5	S1	–
<i>Aristida purpurascens</i>	purple needlegrass	G5 T5	S1	–
<i>Arabis hirsute</i> var. <i>pycnocarpa</i>	hairy rock-cress	G5 T5	S2	–
<i>Arabis patens</i>	spreading rock-cress	G3	S2	–
<i>Baptisia australis</i>	wild false indigo	G5 T3 T4	S3	–
<i>Calopogon tuberosus</i> var. <i>tuberosus</i>	grass Pink	G5 T5	S1	–
<i>Cardamine flagellifera</i>	bitter cress	G3	S2	–
<i>Carex aestivalis</i>	summer sedge	G4	S2	–
<i>Carex careyana</i>	Carey's sedge	G4 G5	S1	–
<i>Carex comosa</i>	bearded sedge	G5	S2	–
<i>Carex emoryi</i>	Emory's sedge	G5	S1	–
<i>Carex interior</i>	inland sedge	G5	S1	–
<i>Carex mesochorea</i>	midland sedge	G4 G5	S2	–
<i>Carex molesta</i>	troublesome sedge	G4	S3	–
<i>Carex nigromarginata</i>	black-edge sedge	G5	S3	–
<i>Carex seorsa</i>	wesk stellate sedge	G4	S1	–
<i>Carex styloflexa</i>	bent sedge	G4 G5	S1	–
<i>Carex suberecta</i>	prairie straw sedge	G4	S1	–
<i>Carex typhina</i>	cat-tail sedge	G5	S2	–
<i>Carex woodii</i>	pretty sedge	G4	S1 S2	–
<i>Commelina erecta</i>	slender day-flower	G5 T5	S2	–
<i>Corallorhiza wisteriana</i>	spring coralroot	G5	S2	–
<i>Coreopsis pubescens</i> var. <i>robusta</i>	star tickweed	G5? T3 T5	S2	–
<i>Croton glandulosus</i> var. <i>septentrionalis</i>	northern croton	G5 T5	S3	–
<i>Cuscuta indecora</i>	pretty dodder	G5 T5	S1	–
<i>Cymophyllus fraserianus</i>	Fraser's Sedge	G4	S3	–
<i>Cyperus refractus</i>	reflexed flatsedge	G5	S3	–
<i>Cyperus squarrosus</i>	awned cyperus	G5	S3	–
<i>Desmodium lineatum</i>	sand tick-trefoil	G5	S1	–
<i>Eleocharis compressa</i>	flat-stemmed spikerush	G4	S2	–
<i>Eleocharis intermedia</i>	matted spikerush	G5	S1	–
<i>Eleocharis palustris</i>	creeping spike-rush	G5	S3	–
<i>Eriogonum allenii</i>	yellow buckwheat	G4	S2	–
<i>Eupatorim pilosum</i>	vervain thoroughwort	G5	S2	–
<i>Fimbristylis annua</i>	annual fimbry	G5	S1	–
<i>Galactia volubilis</i>	downy milkpea	G5	S2	–
<i>Gentiana austromontana</i>	Appalachian gentian	G3	S1	–
<i>Helianthemum canadense</i>	Canada frostweed	G5	S2	–
<i>Helianthus laevigatus</i>	smooth sunflower	G4	S2	–

**TABLE F.3 Species of Special Concern in West Virginia Known to Occur in New River Gorge National River**

Scientific Name	Common Name	Global Rank	West Virginia Rank	Federal Rank
<i>Helianthus occidentalis</i> spp. <i>occidentalis</i>	McDowell sunflower	G5 T5	S2	–
<i>Hibiscus laevis</i>	halberd-leaved mallow	G5	S2	–
<i>Hypericum virgatum</i>	coppery St. John's-wort	G4	S1	–
<i>Juncus dichotomus</i>	forked rush	G5	S1	–
<i>Lythrum alatum</i>	winged loosestrife	G5 T5	S2	–
<i>Maianthemum stellatum</i>	starflower false Solomon's seal	G5	S2	–
<i>Melica mutica</i>	two-flower melic grass	G5	S2	–
<i>Najas gracillima</i>	slender water nymph	G5?	S2	–
<i>Oenothera pilosella</i>	evening-primrose	G5	S2	–
<i>Pinus resinosa</i>	red pine	G5	S1	–
<i>Piptochaetium avenaceum</i>	blackseed needlegrass	G5	S2	–
<i>Platanthera psychodes</i>	small purple-fringe orchid	G5	S1	–
<i>Poa saltuensis</i>	drooping bluegrass	G5	S1	–
<i>Pogonia ophioglossoides</i>	rose pogonia	G5	S2	–
<i>Polygala curtisii</i>	Curtis milkwort	G5	S2	–
<i>emersum</i>	water smarweed	G5 T5	S2	–
<i>Pycnanthemum incanum</i> var. <i>puberulum</i>	hoary mountain-mint	G4	S1	–
<i>Pycnanthemum loomisii</i>	Loomis' mountain-mint	G4?	S2	–
<i>Pycnanthemum torrei</i>	Torrey's mountain-mint	G2	S1	–
<i>Ranunculus pusillus</i>	low spearwort	G5 T4?	S1	–
<i>Rhynchospora recognia</i>	globe beaked-rush	G5?	S2	–
<i>Salix lucida</i>	shining willow	G5 T5	S1	–
<i>Saxifraga careyana</i>	Carey's saxifrage	G3	S3	–
<i>Schoenoplectus purchianus</i>	weakstalk bulrush	G4 G5	S3	–
<i>Scutellaria saxatilis</i>	rock skullcap	G3	S2	–
<i>Sibana virginica</i>	Virginia cress	G5	S2?	–
<i>Sida hermaphrodita</i>	Virginia mallow	G3	S3	–
<i>Silene nivea</i>	snowy champion	G4?	S1	–
<i>Silphium perfoliatum</i> var. <i>connatum</i>	Virginia cup-plant	G5 T3?	S1	–
<i>Solidago simples</i> ssp. <i>randii</i>	Rand's goldenrod	G5 T4	S1	–
<i>Spiranthes tuberosa</i>	little ladies'-tresses	G5	S3	–
<i>Spirea virginiana</i>	Virginia spiraea	S1	G2	threatened
<i>Sporobolus clandestinus</i>	rough dropseed	G5	S1	–
<i>Stachys nuttallii</i>	Nuttall's hedge-nettle	G5?	S3	–
<i>Stachys tenuifolia</i> var. <i>tenuifolia</i>	smooth hedge-nettle	G5	S3	–
<i>Thalictrum clavatum</i>	Mountain meadow-rue	G4	S1	–
<i>Thalictrum steeleanum</i>	Steele's meadow rue	G3	S1	–
<i>Trifolium stoloniferum</i>	running buffalo clover	S3	G3	endangered
<i>Triphora trianthophora</i>	nodding pogonia	G3	S2	–
<i>Vitis rupestris</i>	sand grape	G3	S2	–

**TABLE F.3 Species of Special Concern in West Virginia Known to Occur in New River Gorge National River**

Scientific Name	Common Name	Global Rank	West Virginia Rank	Federal Rank
<i>Woodsia scopulina</i>	Allegheny cliff fern	G5	S2	–
<b>Birds</b>				
<i>Accipiter cooperii</i>	Cooper's hawk	G5	S3B, S4N	–
<i>Accipiter striatus</i>	sharp-shinned hawk	G5	S3B, S4N	–
<i>Actitis macularia</i>	spotted sandpiper	G5	S3B	–
<i>Ammodramus savannarum</i>	grasshopper sparrow	G5	S3B	–
<i>Anas crecca</i>	green-winged teal	G5	SHB, S2N	–
<i>Anas rubripes</i>	American Black duck	G5	S2B, S4N	–
<i>Ardea herodias</i>	great blue heron	G5	S2B, S4N	–
<i>Botaurus lentiginosus</i>	American bittern	G4	S1B, S1N	–
<i>Catharus ustulatus</i>	Swainson's thrush	G5	S1B	–
<i>Certhia americana</i>	brown creeper	G5	S3B, S4N	–
<i>Chordeiles minor</i>	common nighthawk	G5	S3B	–
<i>Circus cyaneus</i>	northern harrier	G5	S1B, S3N	–
<i>Coccyzus erythrophthalmus</i>	black-billed cuckoo	G5	S3B	–
<i>Colinus virginianus</i>	northern bobwhite	G5	S3B, S3N	–
<i>Contopus virens</i>	eastern wood peewee	G5	SB5	–
<i>Coragyps atratus</i>	black vulture	G5	S3	–
<i>Dendroica coronata</i>	yellow-rumped warbler	G5	S3B, S3N	–
<i>Dendroica fusca</i>	Backburnian warbler	G5	S3B	–
<i>Dolichonyx oryzivorus</i>	bobolink	G5	S2B	–
<i>Eremophila alpestris</i>	horned hawk	G5	S2B, S3N	–
<i>Falco peregrinus</i>	peregrine falcon	G4	S1B, S2N	–
<i>Fulica americana</i>	American coot	G5	S1B, S3N	–
<i>Haliaeetus leucocephalus</i>	bald eagle	G5	S2B, S3N	–
<i>Limnothlypis swainsonii</i>	Swainson's warbler	G4	S2B	–
<i>Lophodytes cucullatus</i>	hooded merganser	G5	S1B, S4N	–
<i>Melanerpes erythrocephalus</i>	red-headed woodpecker	G5	S2B, S3N	–
<i>Pandion haliaetus</i>	osprey	G5	S2B, S2N	–
<i>Petrochelidon pyrrhonota</i>	cliff swallow	G5	S3B	–
<i>Podilymbus podiceps</i>	pied-billed grebe	G5	S2B, S4N	–
<i>Poocetes gramineus</i>	Vesper sparrow	G5	S3B, S3N	–
<i>Protonotaria citrea</i>	prothonotary warbler	G5	S2B	–
<i>Riparia riparia</i>	bank swallow	G5	S2B	–
<i>Sphyrapicus varius</i>	yellow-billed sapsucker	G5	S1B, S3N	–
<i>Spiza americana</i>	dickcissel	G5	S2B	–
<i>Vermivora chrysoptera</i>	golden-winged warbler	G4	S2B	–
<i>Vermivora ruficapilla</i>	Nashville warbler	G5	S1B	–

**TABLE F.3 Species of Special Concern in West Virginia Known to Occur in New River Gorge National River**

Scientific Name	Common Name	Global Rank	West Virginia Rank	Federal Rank
<b>Mammals</b>				
<i>Cornynorhinus rafinesquii</i>	Rafinesque's big-eared bat	G3 G4	S1	–
<i>Cornynorhinus townsendii</i>	Virginia big-eared bat	G4 T2	S2	endangered
<i>Cryptotis parva</i>	least shrew	G5	S2	–
<i>Lasionycteris noctivagans</i>	silver-haired bat	G5	S2	–
<i>Lasiurus cinereus</i>	hoary bat	G5	S3	–
<i>Myotis leibii</i>	small-footed myotis	G3 G4	S1	–
<i>Myotis sodalis</i>	Indiana bat	G2	S1	endangered
<i>Neotoma magister</i>	Allegheny woodrat	G3 G4	S3	species of concern
<i>Nycticeius humeralis</i>	evening bat	G5	SH	–
<i>Ochrotomys nuttalli</i>	golden Mouse	G5	S2	–
<i>Puma concolor cougar</i>	eastern cougar	G5	SH	–
<i>Scalopus aquaticus</i>	eastern mole	G5	S3	–
<i>Sorex dispar</i>	long-tailed shrew	G4	S2 S3	–
<i>Sorex hoyi winnemana</i>	southern pygmy shrew	G5 T4	S2 S3	–
<i>Synaptomys cooperi</i>	southern bog lemming	G5	S2	–
<i>Zapus hudsonius</i>	meadow dumping mouse	G5	S3	–
<b>Reptiles</b>				
<i>Carphophis amoenus</i>	eastern worm snake	G5	S3	–
<i>Crotalis horridus</i>	timber rattlesnake	G4	S3	–
<i>Eumeces anthracinus anthracinus</i>	northern coal skink	G5 T5	S2	–
<i>Eumeces laticeps</i>	broad-headed skink	G5	S2	–
<i>Glyptemys insculpta</i>	wood turtle	G4	S2	–
<i>Graptemys geographica</i>	common map turtle	G5	S2	–
<i>Opheodrys aestivus</i>	rouge green snake	G5	S3	–
<i>Pseudemys concinna</i>	river cooter	G5	S2	–
<b>Invertebrate Animals</b>				
<i>Calephelis borealis</i>	swamp metalmark	G3	S2	–
<i>Cicindela ancocisconensis</i>	tiger beetle	G3 G4	S3	–
<i>Speyeria diana</i>	Diana fritillary	G4 G5	S2	species of concern
<b>Amphibian Species</b>				
<i>Ambystoma jeffersonianum</i>	Jefferson salamander	G4	S3	–
<i>Aneides aeneus</i>	green salamander	G3 G4	S3	–
<i>Desmognathus quadramaculatus</i>	black-bellied salamander	G5	S3	–
<i>Eurycea lucifuga</i>	cave salamander	G5	S3	–
<i>Plethodon Kentucky</i>	Cumberland plateau salamander	G4	S2	–
<i>Pseudotriton montanus diastictus</i>	midland mud salamander	G5	S1	–
<i>Pseudotriton ruber</i>	northern red salamander	G5	S3	–

**TABLE F.3 Species of Special Concern in West Virginia Known to Occur in New River Gorge National River**

Scientific Name	Common Name	Global Rank	West Virginia Rank	Federal Rank
<b>Fish</b>				
<i>Etheostoma osburni</i>	candy darter	G3	S2	–
<i>Nocomis platyrhynchus</i>	bigmouth chub	G4	S3 S4	–
<i>Notropis scabriceps</i>	New River shiner	G4	S2	–
<i>Phoxinus oreas</i>	mountain redbelly dace	G5	S3	–
<b>Mussels</b>				
<i>Alasmidonta marginata</i>	elktoe mussel	G4	S2	–
<i>Cyclonaias turberculata</i>	purple wartyback	G5	S1	–
<i>Elliptio dilatata</i>	spike mussel	G5	S2	–
<i>Lampsilis fasciola</i>	wavy-rayed lampmussel	G5	S2	–
<i>Lampsilis ovata</i>	pocketbook mussel	G5	S1	–
<i>Lasmigona subviridis</i>	green floater	G3 G4	S2	–
<i>Quadrula quadrula</i>	maple leaf	G5	S2	–
<i>Toxolasma parvus</i>	lilliput	G5	S2	–
<i>Tritogonia verrucosa</i>	pistolgrip	G5	S2	–

**G1** – five or fewer documented occurrences, or very few remaining individuals globally – extremely rare and critically imperiled  
**G2** – six to 20 documented occurrences, or few remaining individuals globally – very rare and imperiled  
**G3** – twenty-one to 100 documented occurrences – either very rare and local throughout its range or found locally in a restricted range, vulnerable to extinction  
**G4** – common and apparently secure globally, though it may be rare in parts of its range, especially at the periphery  
**G5** – very common and demonstrably secure, though it may be rare in parts of its range, especially at the periphery  
**S1** – five or fewer documented occurrences, or very few remaining individuals within the state – extremely rare and critically imperiled  
**S2** – six to 20 documented occurrences, or few remaining individuals within the state – very rare or imperiled  
**S3** – twenty-one to 100 documented occurrences – may be somewhat vulnerable to extirpation  
**S4** – common and apparently secure with more than 100 occurrences  
**S5** – very common and demonstrably secure  
**SA** – rare in the state but an accidental occurrence  
**SH** – known only from historical records  
**SA** – rare in the state but an accidental occurrence  
**T** – T ranks are defined the same way as G rankings (G1 to G5) but they refer only to the rarity of the subspecific taxon  
**B** – bird breeding populations; rank reflects species status in WV during breeding season  
**N** – non-breeding populations; rank reflects species status in WV outside the breeding season; mainly refers to species status in the winter; doesn't apply for regular non-breeding migrants

Source: NatureServe 2004; NPS 2008f; WVDNR 2008b

Table F.4 Roads Providing Access to Park Facilities

Road	Park Facilities Accessed	Road Surface/ Average Daily Trips	Related Issues/ Planned Improvements
<b>WV State Route 20</b>	<ul style="list-style-type: none"> <li>▪ Sandstone Falls Overlook</li> <li>▪ Camp Brookside</li> <li>▪ Camp Brookside River Access</li> <li>▪ Sandstone River Access</li> </ul>	<ul style="list-style-type: none"> <li>▪ paved maintained</li> <li>▪ ADT 2100 at Sandstone</li> <li>▪ ADT 2900 near Barksdale</li> <li>▪ ADT 8300 west Hinton Br</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies (to be mitigated in part following construction of New River Parkway)</li> </ul>
<b>River Road WV County Route 26</b>	<ul style="list-style-type: none"> <li>▪ Tug Creek River Access</li> <li>▪ Brooks Falls Day Use Area</li> <li>▪ Hellems Beach River Access</li> <li>▪ Sandstone Falls Take-Out</li> <li>▪ Sandstone Falls</li> <li>▪ Sandstone Falls River Access</li> </ul>	<ul style="list-style-type: none"> <li>▪ paved maintained</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies</li> <li>▪ future planned redesign and reconstruction as New River Parkway</li> </ul>
<b>Brooks Mountain Road WV County Route 44/5</b>	<ul style="list-style-type: none"> <li>▪ Gwinn Ridge Trailhead</li> </ul>	<ul style="list-style-type: none"> <li>▪ gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies</li> </ul>
<b>WV County Route 26/3</b>	<ul style="list-style-type: none"> <li>▪ Trump-Lilly Farm</li> </ul>	<ul style="list-style-type: none"> <li>▪ gravel maintained/ unimproved</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies</li> </ul>
<b>WV County Route 7</b>	<ul style="list-style-type: none"> <li>▪ Sandstone Visitor Center</li> <li>▪ Meadow Creek River Access</li> <li>▪ Jewell Tract River Access</li> </ul>	<ul style="list-style-type: none"> <li>▪ paved maintained</li> <li>▪ ADT 360 before Sandstone Visitor Center</li> </ul>	<ul style="list-style-type: none"> <li>▪ no current or anticipated roadway capacity or safety deficiencies from I-64 to Sandstone VC</li> <li>▪ existing capacity and safety deficiencies from Sandstone VC to Meadow Creek</li> </ul>
<b>Claypool Road WV County Route 7/1</b>	<ul style="list-style-type: none"> <li>▪ Meadow Creek fishing area</li> </ul>	<ul style="list-style-type: none"> <li>▪ gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies</li> </ul>
<b>Backus Mountain Road WV County Route 22/7</b>	<ul style="list-style-type: none"> <li>▪ Backus Mountain hunting area</li> </ul>	<ul style="list-style-type: none"> <li>▪ paved maintained</li> <li>▪ ADT 200 near Backus</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies</li> </ul>
<b>WV County Route 27/9</b>	<ul style="list-style-type: none"> <li>▪ Polls Branch hiking and fishing area</li> </ul>	<ul style="list-style-type: none"> <li>▪ gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies</li> </ul>
<b>WV County Route 119/36</b>	<ul style="list-style-type: none"> <li>▪ Glade Creek Trailhead</li> <li>▪ Glade Creek hiking and fishing area</li> </ul>	<ul style="list-style-type: none"> <li>▪ unimproved/primitive</li> </ul>	<ul style="list-style-type: none"> <li>▪ existing capacity and safety deficiencies</li> <li>▪ road geometry constrains access for large vehicles</li> </ul>
<b>WV County Route 9</b>	<ul style="list-style-type: none"> <li>▪ Grandview day-use facilities</li> <li>▪ Theatre West Virginia</li> </ul>	<ul style="list-style-type: none"> <li>▪ paved maintained</li> <li>▪ ADT – 2600 north I-64</li> <li>▪ ADT – 820 at SR 983</li> </ul>	<ul style="list-style-type: none"> <li>▪ no current or anticipated roadway capacity or safety deficiencies</li> </ul>
<b>Grandview Entrance Road and Turkey Spur Overlook Road (NPS Park Roads)</b>	<ul style="list-style-type: none"> <li>▪ Grandview day-use facilities</li> <li>▪ Theatre West Virginia</li> <li>▪ Turkey Spur Overlook</li> </ul>	<ul style="list-style-type: none"> <li>▪ paved maintained</li> </ul>	<ul style="list-style-type: none"> <li>▪ no current or anticipated roadway capacity or safety efficiencies from park entrance to shelters</li> <li>▪ existing access issues between amphitheater and visitor contact station</li> <li>▪ existing capacity and safety issues for Turkey Spur Road will be mitigated by construction of new parking lot, pedestrian access</li> </ul>
<b>WV State Route 41</b>	<ul style="list-style-type: none"> <li>▪ McCreery River Access</li> </ul>	<ul style="list-style-type: none"> <li>▪ paved maintained</li> <li>▪ ADT - 950 at Quinnimont</li> <li>▪ ADT - 1150 at McCreery</li> </ul>	<ul style="list-style-type: none"> <li>▪ pedestrian crossing hazard at McCreery river access</li> <li>▪ Thomas Burford Pugh Memorial</li> </ul>

**Table F.4 Roads Providing Access to Park Facilities**

Road	Park Facilities Accessed	Road Surface/ Average Daily Trips	Related Issues/ Planned Improvements
			<ul style="list-style-type: none"> <li>Bridge Replacement after 2009</li> <li>no other current or anticipated roadway capacity or safety deficiencies</li> </ul>
<b>Glade Creek Road (NPS Park Road) (State Scenic Backway)</b>	<ul style="list-style-type: none"> <li>Glade Creek Campground</li> <li>Glade Creek River Access</li> <li>Glade Creek hiking, fishing, and hunting area</li> <li>Mill Creek River Access</li> <li>Grandview Sandbar Campground</li> <li>Grandview Sandbar River Access</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>road closed due to slides in 2006 and 2007; repaired by FHWA and reopened 1/2008</li> </ul>
<b>Army Camp Road NPS Park Road</b>	<ul style="list-style-type: none"> <li>Army Camp Campground</li> <li>Army Camp River Access</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>no current or anticipated roadway capacity or safety deficiencies</li> </ul>
<b>McKendree Road (from Stone Cliff to Prince) WV County Route 25</b>	<ul style="list-style-type: none"> <li>Thayer River Access</li> <li>Thayer Campground</li> <li>Stone Cliff and Buffalo Creek fishing area</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained/paved</li> </ul>	<ul style="list-style-type: none"> <li>very poor capacity</li> <li>road geometry constrains access for large vehicles</li> <li>road from Thayer to Prince in poor condition and is subject to slides and slumping</li> </ul>
<b>Stone Cliff Road NPS Park Road</b>	<ul style="list-style-type: none"> <li>Stone Cliff Campground</li> <li>Stone Cliff River Access</li> <li>Stone Cliff hiking area</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>no current or anticipated roadway capacity or safety deficiencies</li> </ul>
<b>WV County Route 41/12</b>	<ul style="list-style-type: none"> <li>Dowdy Creek hunting area</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained/dirt</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety deficiencies</li> </ul>
<b>WV County Route 25/2</b>	<ul style="list-style-type: none"> <li>Claremont hunting area</li> <li>Above Thurmond hunting area</li> <li>Below Thurmond hunting area</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety deficiencies</li> <li>road geometry constrains access for large vehicles</li> </ul>
<b>Terry Road WV County Route 41/8</b>	<ul style="list-style-type: none"> <li>Terry Beach River Access</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety deficiencies</li> </ul>
<b>WV County Route 41/2</b>	<ul style="list-style-type: none"> <li>Terry Batoff and Garden Ground hiking areas</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety deficiencies</li> </ul>
<b>WV County Route 25 (from Glen Jean to Stone Cliff)</b>	<ul style="list-style-type: none"> <li>Park Headquarters</li> <li>Dunloup Creek fishing area</li> <li>Thurmond-Minden Trailhead</li> <li>Southside Junction Parking Area</li> <li>Dun Glen Group Camping</li> <li>Dun Glen Group Picnicking</li> <li>Dun Glen River Access</li> <li>Dun Glen Park Operations Facility</li> </ul>	<ul style="list-style-type: none"> <li>paved maintained</li> <li>ADT – 950 at Glen Jean</li> </ul>	<ul style="list-style-type: none"> <li>no current or anticipated roadway capacity or safety deficiencies for small vehicles</li> <li>road geometry constrains access for large vehicles</li> <li>Laurel Creek Bridge replacement after 2013</li> </ul>
<b>Thurmond Access Roads various state roads</b>	<ul style="list-style-type: none"> <li>Thurmond Depot Visitor Center</li> <li>Thurmond Historic District</li> </ul>	<ul style="list-style-type: none"> <li>paved maintained</li> </ul>	<ul style="list-style-type: none"> <li>very poor capacity and numerous existing roadway capacity and safety deficiencies</li> <li>Thurmond Bridge (state-owned) replacement in 2012</li> </ul>
<b>Minden Road WV County Route 17</b>	<ul style="list-style-type: none"> <li>Thurmond-Minden Trailhead</li> </ul>	<ul style="list-style-type: none"> <li>paved maintained</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety deficiencies</li> </ul>
<b>Keeney Creek Road</b>	<ul style="list-style-type: none"> <li>Nuttallburg Visitor Use Area</li> </ul>	<ul style="list-style-type: none"> <li>paved maintained</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety issues will be mitigated by</li> </ul>

**Table F.4 Roads Providing Access to Park Facilities**

Road	Park Facilities Accessed	Road Surface/ Average Daily Trips	Related Issues/ Planned Improvements
<b>WV County Route 85/2</b>			<ul style="list-style-type: none"> <li>construction of new trailheads for the Nuttallburg Visitor Use Area</li> <li>road geometry constrains access for large vehicles</li> </ul>
<b>Lansing Road</b> <b>WV County Routes 5 and 82</b>	<ul style="list-style-type: none"> <li>Canyon Rim Visitor Center</li> <li>Canyon Rim Boardwalk</li> <li>Ambassador Buttress climbing area</li> <li>Endless Wall climbing area</li> <li>Fern Creek Trailhead</li> <li>Nuttall Trailhead</li> </ul>	<ul style="list-style-type: none"> <li>paved maintained</li> <li>ADT – 700 at Edmond</li> <li>ADT – 280 at Winona</li> </ul>	<ul style="list-style-type: none"> <li>no current or anticipated roadway capacity or safety deficiencies</li> </ul>
<b>WV County Route 85/5</b>	<ul style="list-style-type: none"> <li>Beauty Mountain Trailhead</li> <li>Beauty Mountain climbing area</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety deficiencies</li> </ul>
<b>Cunard Access Road</b> <b>NPS Park Road</b>	<ul style="list-style-type: none"> <li>Cunard Trailhead</li> <li>Cunard River Access</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>road damaged by recurring slides; repaired and widened by FHWA in 2007/2008</li> </ul>
<b>Brooklyn Road</b> <b>NPS Park Road</b>	<ul style="list-style-type: none"> <li>Brooklyn Southside Junction Trailhead</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>no current or anticipated roadway capacity or safety deficiencies</li> </ul>
<b>Gatewood Road</b> <b>WV County Route 9</b>	<ul style="list-style-type: none"> <li>Longpoint Trailhead</li> <li>Kaymoor Top Area</li> <li>Cunard River Access</li> </ul>	<ul style="list-style-type: none"> <li>paved maintained</li> <li>ADT – 2150 at SR 16</li> <li>ADT – 1200 at Garden</li> <li>ADT – 470 at Cunard</li> </ul>	<ul style="list-style-type: none"> <li>no current or anticipated roadway capacity or safety deficiencies</li> </ul>
<b>Kaymoor Top Road</b> <b>NPS Park Road</b>	<ul style="list-style-type: none"> <li>Kaymoor Top Trailhead</li> <li>Craig Branch Trail</li> <li>South Nuttall climbing area</li> <li>Butcher Branch climbing area</li> </ul>	<ul style="list-style-type: none"> <li>gravel maintained</li> </ul>	<ul style="list-style-type: none"> <li>existing capacity and safety deficiencies</li> </ul>
<b>Fayette Station Road</b> <b>WV County Route 82</b>	<ul style="list-style-type: none"> <li>Fayette Station River Access</li> <li>Wolf Creek Trailhead</li> <li>Bridge Climbing Area</li> <li>Bridge Trailhead</li> <li>Bridge Buttress Climbing Area</li> <li>Sunshine Buttress Climbing Area</li> </ul>	<ul style="list-style-type: none"> <li>paved, one-way with pull-offs</li> <li>ADT – 120 at Canyon Rim</li> <li>ADT – 380 at US 19</li> </ul>	<ul style="list-style-type: none"> <li>poor existing capacity, especially on peak visitation days</li> <li>steep gradients, tight curves, short stopping distances</li> <li>access constrained due to road geometry for large vehicles</li> </ul>
<b>US Route 19</b>	<ul style="list-style-type: none"> <li>Burnwood Group Picnic Area</li> <li>Burnwood Park Operations Facility</li> </ul>	<ul style="list-style-type: none"> <li>paved maintained</li> <li>ADT – 12000 above bridge</li> <li>ADT – 16200 below bridge</li> </ul>	<ul style="list-style-type: none"> <li>no current or anticipated roadway capacity or safety deficiencies</li> </ul>

Source: WV DOT 2005, 2005-2006, and 2007 (for planned improvements); 2006 (for average daily trips – ADTs)



## References

## References

- Albers, S. and D. Duriscoe  
 2003 Analysis of air quality and visibility in and around New River Gorge." (George Wright FORUM 2002). National Oceanic and Atmospheric Administration, Forecast Systems Laboratory. Boulder, CO.
- Allan, J.  
 1983 Predator-prey relationships in streams. Pages 191-229. J.R. Barnes and G.W. Marshall (eds). Stream ecology: application and testing of general ecological theory. Plenum Press, NY.
- Aldehoch, J.  
 2003 Analysis of air quality and visibility in and around New River Gorge National River. (Prepared by Air Resource Specialists.) Fort Collins, CO.
- Alterman, M.L.  
 1989 Archeological testing for boardwalk and bridge improvements at Sandstone Falls, New River Gorge National River. (Louis Berger & Associates, Inc). National Park Service, Rockville, MD.
- Alterman, M.L., and A. Friedlander  
 2000 Canyon Rim Visitor Center improvement project historical and archeological investigations. (Louis Berger & Associates, Inc.). National Park Service. Glen Jean, WV.
- Baker, Jr., Michael  
 1977 Addendum cultural resources technical report for the proposed New River Parkway environmental impact statement (volume III). Report prepared for Community Design Assistance Center, Virginia Polytechnic Institute and State University and the West Virginia Department of Transportation, Division of Highways (State Project: X241-125-0.00; Federal Project DE-000602 802). Charleston, WV.
- Balcom, B.J., and R.H. Yahner  
 1996 Microhabitat and landscape characteristics associated with the threatened Allegheny woodrat. Conservation Biology 10.
- Beckley, City of  
 2001 City of Beckley comprehensive plan. Prepared by Poggemeyer Design Group, Bowling Green, OH.
- Bourassa, N., and A. Cattaneo  
 1998 Control of periphyton biomass in Laurentian streams (Quebec). Journal of the North American Benthological Society 17:420-429.
- Brown, S.A.  
 1990 Kay Moor historic resource study. National Park Service. Glen Jean, WV.
- Bryan, H.D., J.R. MacGregor, and J.D. Kiser  
 1999 A survey for federally endangered bat species in abandoned mine portals in the New River Gorge National River, West Virginia. Final report. Eco-Tech, Inc. Frankfurt, KY.
- Buhlmann, K.A.  
 1990 A naturalist's view of the New River Gorge National River. Eastern National Park and Monument Association.
- Buhlmann, K.A., and M.R. Vaughan  
 1987 A biological survey of the New River Gorge National River. Volumes 1-3. National Park Service, Mid-Atlantic Region.

## NEW RIVER GORGE NATIONAL RIVER General Management Plan – References

- Camarena, N., and S.A. Brown  
1990 Bank of Glen Jean historic structure report. National Park Service. Glen Jean, WV.
- Campbell, Brian C.  
2006 New River Gorge National River – park associated people and groups. National Park Service, Northeast Region Ethnography Program. Boston, MA
- Canterbury, R.A., J. Meyer, S. Pugh, and D.M. Stover  
2002 Monitoring avian productivity and survivorship in New River Gorge National River West Virginia. Progress report. New River Gorge National River. Glen Jean, WV.
- Castleberry, S.B., W.M. Ford, M.A. Menzel, J.M. Menzel, and K.V. Miller  
2002 Surveys of bat community composition, relative abundance, and distribution at the New, Gauley, and Bluestone River National Park areas. Research proposal. New River Gorge National River. Glen Jean WV.
- Cater, S.  
2006 New River Gorge, Meadow River, and Summersville Lake Rock Climbers' Guidebook (3<sup>rd</sup> Edition). King Coal Propaganda. Fayetteville, WV.
- Cincotta, D.A., D.B. Chambers, and T. Messinger  
1999 Recent changes in the distribution of fish species in the New River Basin in West Virginia and Virginia. *in* Proceedings. New River Symposium. April 15-16, 1999. Boone, NC. National Park Service. Glen Jean, AV.
- Clare, M.  
2006 Geology report 2006 New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River. National Park Service, Glen Jean, WV.
- Cooper, A.H., and D.G. Orr  
1997 Archeological evaluation of proposed improvements Grandview Sandbar and Army Camp. National Park Service. Philadelphia, PA.
- Cowardin, L.M., V. Carter, F. Golet, and E. LaRoe  
1979 Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service, Washington, D.C.
- Crossman, E.  
1991 Introduced freshwater fishes: a review of North American perspective with emphasis on Canada. Canadian Journal of Fisheries and Aquatic Sciences 48 (supplement): 46-57.
- Curtis, P.D., and K.L. Sullivan  
2001 Wildlife damage management fact sheet series: White-tailed deer. Cornell Cooperative Extension. Ithaca, NY.
- Dillon, R.T., and E.F. Benfield  
1982 Distribution of pulmonate snails in the New River of Virginia and North Carolina, U.S.A.: Interaction between alkalinity and stream drainage area. Freshwater Biology 12.
- Easton, R.S., D.J. Orth, and J.R. Voshell. 1995. Spatial and annual variation in diet and foraging success of age – 0 smallmouth bass, *Micropterus dolomieu* (Lacopede). Environmental Biology of Fishes 46.
- Economics Research Associates  
2007 West Virginia whitewater industry strategy. Prepared for 4-C Economic Development Authority, Beckley, West Virginia.

- Entech, Inc  
 2002 Re-Inventory and assessment of AML sites at New River Gorge and Gauley River, Fayette, Nicholas, Raleigh and Summers Counties, West Virginia. National Park Service. Glen Jean, WV.
- Eye, O.L  
 1981 Kate's Branch wetland. (Unpublished report to West Virginia Department of Natural Resources).
- Fayette County  
 2005 Comprehensive wastewater management plan for Fayette County. Prepared by Lombardo Associates, Inc. in association with Stafford Consultants, Inc.) Glen Jean, WV.  
 2001 2001 comprehensive plan – Fayette County, West Virginia. (Prepared by Whitney, Bailey, Cox & Magnani, Inc.).
- Federal Emergency Management Agency  
 1988 Flood insurance rate maps – Fayette County, West Virginia.
- Feminella, J., and C. Hawkins  
 1995 Interactions between stream herbivores and periphyton: a quantitative analysis of past experiments. *Journal of the North American Benthological Society* 14:465-509.
- Flug, M.  
 1987 New River flow analysis. National Park Service, Fort Collins, CO.
- Fortney, R.H., S.L. Stephenson, and H.S. Adams  
 1995 Reconnaissance vegetation study of the Bluestone, New, and Gauley River Gorges. Final Report. New River Gorge National River. Glen Jean, WV.
- Fridley, H.  
 1950 The geomorphic history of the New-Kanawha River system. West Virginia Geological and Economic Survey. Morgantown, WV.
- Fuerst, David N.  
 1981 A cultural resource project: New River Gorge National River, West Virginia (volumes 1 and 3). Report submitted to the National Park Service (Contract No. CX4000-0-0034) by Paul D. Marshall & Associates, Charleston, WV
- GAI Consultants, Inc.  
 2007 Archaeological data recovery at Nuttallburg Mine Conveyor, New River Gorge National River. National Park Service, Denver CO.
- Garman, G., and L. Nielson  
 1982 Piscivory by stocked brown trout (*Salmo trutta*) and its impact on the nongame fish community of Bottom Creek, Virginia. *Canadian Journal of Fisheries and Aquatic Sciences* 39:862-869.
- Good, G.A., L. Stasick, and J. Clarke  
 2005 Administrative history, New River Gorge National River, West Virginia. National Park Service. Glen Jean, WV.
- Graham, R.J., and D.J. Orth  
 1986 Effects of temperature and streamflow on time and duration of spawning by smallmouth bass. *Transactions of the American Fisheries Society* 115(5):693-702.
- Grafton, W.N.  
 1993 Vascular flora on the lower sections of Gauley, Meadow, and Bluestone Rivers. (Extension Service and Division of Forestry, West Virginia University) National Park Service. Glen Jean, WV.

- Grafton, W.N. and E. Grafton  
1980 Literature review of geology/soils, plants and animal information pertinent to the New River Gorge National River, WV. Unpublished report.
- Heritage Partners/ICON architecture, inc., and McMullan & Associates  
2004 Nuttallburg Mine historic structures report. National Park Service. Glen Jean, WV
- Hinton, City of  
2005 Hinton 2010: planning for the future. Prepared by West Virginia University Extension Service, Hinton WV.
- Hooper, M.K., J.A. Parkhurst, and L.L. McMullin  
2006 Assessment of hunting impacts of New River Gorge National River, West Virginia. Technical Report NPS/NER/NRTR – XXXX/XXX. National Park Service. Philadelphia, PA.
- Horsely, S.B., S.L. Stout, and D.S. DeCalesta  
2003 White-tailed deer impact on the vegetation dynamics of a northern hardwood forest. Ecological Applications 13.
- Hufford, M., T. Carroll, and R. Moonsammy  
2006 Ethnographic overview and assessment of the New River Gorge National River and the Gauley River National Recreation Area. (Center for Folklore and Ethnography, University of Pennsylvania). National Park Service, Glen Jean, WV.
- Jarvis, G.  
2002 Draft climbing management plan: environmental assessment (internal draft). National Park Service, Geological Resources Division, Denver, CO.
- Jenkins, R.E., and N.M. Burkhead  
1994 Freshwater fishes of Virginia. American Fisheries Society. Bethesda, MD.
- Jensen, P., D. Regan and J.L. Marion.  
1993 A trail development plan for the New River Gorge National River. (Openspace Management, Appalachian Mountain Club, and Virginia Tech) National Park Service. Glen Jean, WV.
- Jirka, K.J., and R.J. Neves  
1987 A biological survey of the New River Gorge National River, Volume 4: a survey of freshwater mussels: final report. New River Gorge National River. Glen Jean, WV.
- Johnson, J.  
2003 Survey of abandoned mine portals for bats at the New River Gorge National River and Gauley River National Recreation Area, West Virginia. Research report. National Park Service, New River Gorge National River. Glen Jean, WV.
- Jones, T., and J.M. Purvis  
2003 Determine status and trends of New River crayfish community. Research Proposal. National Park Service, Glen Jean, WV.
- Land and Community Associates  
1994 Grandview cultural landscape report. National Park Service. Denver, CO
- LeeDecker, C., H Henry, M.R. Holt, and J.T. Eddins  
1996 Archeological investigations at site 46 FA 214 Thurmond Historic District and Southside Junction, New River Gorge National River. (Louis Berger & Associates, Inc.) National Park Service. Denver, CO.

- Lessing, P.  
1986 Geology of the New River Gorge. *Mountain State Geology*.
- Leung, Yu-Fai, and Jeffrey L. Marion.  
1998 A survey of whitewater recreation impacts along five West Virginia rivers. (Prepared for the WV Division of Natural Resources.) Virginia Tech, Department of Forestry, Blacksburg, VA.
- Lincoln, R.J., G. A. Boxshall, and P.F. Clark.  
1982 A dictionary of ecology, evolution and systematics. Cambridge University Press.
- Lobb, M.D., and D.J. Orth  
1988 Microhabitat use by the bigmouth chub *Nocomis platyrhynchus* in the New River, West Virginia. *American Midland Naturalist* 120(1):32-40.  
1987 A biological survey of the New River Gorge National River, Volume 3, habitat use by fishes of the New River, West Virginia. Final Report. New River Gorge National River, Glen Jean, WV.  
1986 Habitat use by the bigmouth chub *Nocomis platyrhynchus* in the New River, West Virginia. *American Midland Naturalist* 120.
- Lytle, D. A., and N. R. Poff.  
2004 Adaptation to natural flow regimes. *Trends in Ecology and Evolution* 19.
- Mahan, C.G.  
2004 A natural resource assessment for New River Gorge National River. Technical Report NPS/NER/NRTR-2004/002. National Park Service. Philadelphia, PA.
- Manni, M.F., Y. Le, M.A. Littlejohn, and S.J. Hollenhorst  
2005 New River Gorge National River visitor study summer 2004. (Park Studies Unit Report 153). (University of Idaho Park Studies Unit) National Park Service. Moscow, ID
- Markham, S.L., C.H. Hocutt, and J.R. Stauffer, Jr  
1980 The crayfish and the freshwater mussels of the lower New River, Virginia and West Virginia. *Natural History Miscellanea* 708.
- Marshall, B.D.  
2001. An evaluation of the sensitivity of a macroinvertebrate biomonitoring study in headwater streams of New River Gorge National River. *Journal of Freshwater Ecology* 16.
- Marshall, P.D.  
1981 A cultural resource project: New River Gorge National River, West Virginia (volume 2). Report submitted to the National Park Service (Contract No. CX4000-0-0034) by Paul D. Marshall & Associates, Charleston, WV
- McDonald, B.R., and P.J. Harmon  
1989 Rare species of the Cunard, Stonecliff, and Southside Junction areas, New River Gorge National River. Report to New River Gorge National River. West Virginia Natural Heritage Program. Elkins, WV.
- McDonald, B.R., and P. Trianosky  
1995 Assessment of and management recommendations for the plant communities and rare species of Camp Brookside, New River Gorge National River. West Virginia Natural Heritage Program Technical Report 95-5. West Virginia Natural Heritage Program, Elkins, WV.
- McMillan, M.H., J.C. Nekola, and D.W. Larson  
2003 Effects of rock-climbing on the vegetation of the Niagara escarpment in southern Ontario, Canada. *Conservation Biology* 16.

- Messinger, T.  
2002 Reconnaissance for selected pathogens, and review of pertinent literature, for the New River Gorge National River, West Virginia, 2000. U.S. Geological Survey, Charleston, WV.
- Messinger, T., and C.A. Hughes  
2000 Environmental setting and its relation to water quality in the Kanawha River basin. U.S.G.S. Water-Resources Investigations Report 00-4020. Charleston, WV.
- Miller, R., and J. Williams  
1989 Extinctions of North American fishes during the last century. *Fisheries* 14:22-38.
- Mott, D.N.  
1995 Water resources issues overview: New River Gorge National River, Gauley River National Recreation Area, and Bluestone National Scenic River, West Virginia. National Park Service. Glen Jean, VA.
- Moyle, P., and J. Williams  
1990 Biodiversity loss in the temperate zone: decline of the native fish fauna of California. *Conservation Biology* 4:275-284.
- Mueller, B.J.  
1997 Kaymoor Mine historic structure report. National Park Service. Denver, CO.
- Naiman, R., H. Decamps, and M. Pollock  
1993 The role of riparian corridors in maintaining regional biodiversity. *Ecological Applications* 3.
- New River Parkway Authority  
1992 New River Parkway master plan – northern and central segments. Hinton, WV.
- Nielsen, L.A., and D.J. Orth  
1988 The hellgrammite-crayfish bait fishery of the New River and its tributaries, West Virginia. *North American Journal of Fisheries Management* 8.
- Norris, S.J.  
2002 Final report of review of plant species lists for New River Gorge National River, Bluestone National Scenic River and Gauley River National Recreation Area. National Park Service, Inventory and Monitoring Program. University Park, PA.
- O'Connell, T., R. Brooks, M. Lanzone, and J. Bishop  
2003 A bird community index for the Mid-Atlantic Piedmont and Coastal Plain. Final report to the U.S. Environmental Protection Agency. Report No. 2003-02. Penn State Cooperative Wetlands Ctr., The Pennsylvania State University. University Park, PA.
- O'Dell, P.  
2003 Oil and gas potential and reasonable foreseeable development activity in the Gauley River National Recreation Area and New River Gorge National River. National Park Service, Geologic Resources Division. Denver, CO.
- O'Dell, P., and L. Norby  
2002 Gauley River National Recreation Area and New River Gorge National River September, 2002 trip report – Geologic Resources Division. National Park Service, Geologic Resources Division. Denver, CO.

- Pauley, T.K.  
1993 Report of upland vertebrates in the New River Gorge National River (3 volumes). Report submitted to New River Gorge National River. Glen Jean, WV.
- Pauley, T.K., G. Kees, L. Ordiway, and M. Turner  
1997 Report of vertebrates in developmental areas of the New River Gorge National River. Final report. New River Gorge National River, Glen Jean WV.
- Parsons Brinckerhoff Quade & Douglas, Inc.  
2000 National Coal Heritage Area strategic management action plan. State of West Virginia Division of Culture and History and the National Park Service. Philadelphia, PA.
- Pennak, R.W.  
1989 Fresh-water invertebrates of the United States, Protozoa to Mollusca. 3<sup>rd</sup> Ed. John Wiley and Son, NY.
- Pennington and Associates, Inc.  
2002 Mollusca survey New River, Stone Cliff Bridge, Fayette County, West Virginia. Report. KCI Technologies, Bensalem, PA.
- Pollack, D., and G. Crothers  
2005 Archaeological overview and assessment of New River Gorge National River, West Virginia. Kentucky Archaeological Survey. Lexington, KY.
- Power, M., and W. Matthews  
1983 Algae-grazing minnows (*Camptostoma anomalum*), piscivorous bass (*Micropterus* spp), and the distribution of attached algae in a small prairie-margin stream. *Oecologia* 60:328-332.
- Purvis, J.M. and L. Wilson  
1999 Hydrologic influences on fecal coliform bacteria in a tributary to New River Gorge National River. pp. 24-31 in Proceedings New River Symposium. April 15-16, 1999. Boone, North Carolina. National Park Service. Glen Jean, WV.
- Purvis, J.M., M. Mathes, T. Messinger, J. Wiley, and K. Paybins.  
2002 Water resources management plan, New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River, West Virginia. National Park Service. Glen Jean, WV.
- Purvis, J.M., L. Wilson, and K. Vandersall  
2006 Water quality monitoring program 2001-2003, New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area, West Virginia. National Park Service. Glen Jean, WV.
- Raleigh County  
1997 Raleigh County comprehensive plan. Beckley, WV.
- Remo, J.W.F.  
1999 Geologic controls on mass-movement in the New River Gorge, West Virginia. Master's Thesis. West Virginia University. Morgantown, WV.
- Ritters, K., J Wickham, R. O'Neill, B. Jones, and E. Smith  
2000 Global-scale patterns of forest fragmentation. *Conservation Ecology* 4(2).
- Roell, M.J., and D.J. Orth  
1992 Production of three crayfish populations in the New River of West Virginia, USA. *Hydrobiologia* 228(3):186-194.  
1985 Impacts of commercial harvest invertebrate baits on the predator-prey interactions in the New River. Final report. National Park Service. Glen Jean, WV.

- Rosenberg, K.V., S.E. Barker, and R.W. Rohrbaugh  
2000 An atlas of cerulean warbler populations. Cornell Lab of Ornithology. Ithaca, NY.
- Rutherford, R.H.  
1999 Periphyton of ten selected tributaries of the New River Gorge National River. Final report. New River Gorge National River. Glen Jean, WV.
- Schwietering, J.F.  
1984 Beneath the New River Gorge. *Mountain State Geology*: 23-24.
- Sheldon, A.L.  
1988 Conservation of stream fishes: patterns of diversity, rarity, and risk. *Conservation Biology* 2.
- Small, Sally, Louis Torres and Larry Reynolds  
1992 Thurmond commercial buildings, New River Gorge National River. National Park Service, Denver, CO.
- Southern Appalachian Biodiversity Institute  
2003 [www.sabionline.org](http://www.sabionline.org).
- Stahlgren, L., M. Jones, R. Burdin, and B. Mabelitini  
2007 Historical archaeological survey: New River Gorge National River and Gauley River National Recreation Area. Kentucky Archeological Survey Report 143. Prepared for NPS by Kentucky Archeological Survey, University of Kentucky, Lexington, KY.
- Stauffer, J.R., Jr., C.H. Hocutt, and S.L. Markham  
1980 Final report, aquatic biological survey of the New River, Virginia and West Virginia. Appalachian Environmental Laboratory, University of Maryland, Frostburg State College Campus, Frostburg, MD.
- Sullivan, R.J.  
1995 Peregrine falcon survey report. Final report. New River Gorge National River. Glen Jean, WV.
- Summers County Commission  
2002 Summers County 2020 – a community shared vision. Hinton, WV.
- Taylor, R.W.  
1983 A survey of the freshwater mussels of the Kanawha River from riverhead to river mouth – Final report. U.S. Army Corps of Engineers, Huntington District, WV.
- U.S. Access Board  
2002 ADA accessibility guidelines for buildings and facilities. Washington, D.C.
- U.S. Department of Agriculture, Natural Resource Conservation Service  
2007 Final watershed plan – final environmental impact statement for the Dunloup Creek watershed. (Prepared for the West Virginia State Conservation Committee and the Southern Conservation District.) Morgantown, WV.
- 2003 West Virginia prime farmland soils and soils of statewide importance. Charleston, WV.
- 1984 Soil survey of Mercer and Summers Counties, West Virginia. Washington, D.C.
- 1975 Soil survey of Fayette and Raleigh Counties, West Virginia. Washington, D.C.

- U.S. Department of Homeland Security, Federal Emergency Management Agency  
 1988 Flood insurance study, unincorporated areas of Fayette County, West Virginia: March 1988. Federal Emergency Management Agency, Washington, D.C.
- 1980 Flood insurance study, unincorporated areas of Summers County, West Virginia: May 1980. Federal Emergency Management Agency, Washington, D.C.
- U.S. Department of the Interior, Fish and Wildlife Service  
 1999 Partners in Flight watchlist. USGS Patuxent Wildlife Research Center. Laurel, MD.
- U.S. Department of the Interior, National Park Service  
 2009 Foundation for planning – New River Gorge National River. National Park Service. Glen Jean, WV.
- 2008a <http://www2.nature.nps.gov/mpur/index.cfm>. NPS Public Use Statistics Office, Washington, D.C.
- 2008b National Park Service general management planning dynamic sourcebook. National Park Service, Denver, CO.
- 2008c Nuttallburg visitor use area implementation plan/environmental assessment. National Park Service. Glen Jean, WV.
- 2008d Park museum collection storage plan. National Park Service. Glen Jean, WV.
- 2008e Potential development of the natural gas resources in the Marcellus Shale, New York, Pennsylvania, West Virginia, and Ohio. National Park Service, Natural Resource Program Center. Washington, D.C.
- 2008f State rare species list – New River Gorge National River. National Park Service. Glen Jean, WV.
- 2007 New River Gorge National River superintendent's compendium to 36 Code Federal Regulations – compendium of designations, closures, permit request requirements, and other restrictions imposed under the discretionary authority of the Superintendent of New River Gorge National River. National Park Service, Glen Jean, WV.
- 2006a National Park Service management policies 2006. Washington Office, Washington, D.C.
- 2006b New River Gorge National River general management plan – scoping report. National Park Service, Glen Jean, WV.
- 2006c New River Gorge National River list of classified structures. National Park Service, Glen Jean, WV.
- 2006d Red Ash Island preliminary site investigation. National Park Service, Glen Jean, WV.
- 2006e Strategic plan for New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River (Fiscal Year 2007 – 2011) National Park Service, Glen Jean, WV.
- 2006f Visitation and visitor use – New River Gorge National River (1984 to 2006). National Park Service, Glen Jean, WV.
- 2005a New River Gorge National River cultural landscapes inventory. Northeast Regional Office, National Park Service, Boston, MA.
- 2005b New River Gorge National River climbing management plan environmental assessment. National Park Service, Glen Jean, WV.

- 2005c Vista management plan, New River Gorge National River. National Park Service. Glen Jean, WV.
- 2004a Collections management plan, New River Gorge National River. (NPS Northeast Museum Services Center) National Park Service. Glen Jean, WV.
- 2003a Integrated pest management plan – New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River. National Park Service, Glen Jean, WV.
- 2003b Nuttallburg level II cultural landscapes inventory. National Park Service, Glen Jean, WV.
- 2002a Camp Brookside level I cultural landscapes inventory. National Park Service, Glen Jean, WV.
- 2002b Christina Vallandingham house level II cultural landscapes inventory. National Park Service, Glen Jean, WV.
- 2002c Harrah Homestead level II cultural landscapes inventory. National Park Service, Glen Jean, WV.
- 2002d Procedural manual #77-1: wetland protection. National Park Service, Denver Service Center, Denver, CO.
- 2002e Richmond-Hamilton Farm level I cultural landscapes inventory. National Park Service, Glen Jean, WV.
- 2002f Thurmond Historic District level II cultural landscapes inventory. National Park Service, Glen Jean, WV.
- 2001a Director’s Order 12: conservation planning, environmental impact analysis, and decision-making. National Park Service, Washington, D.C.
- 2001b New River Gorge floods 2001: emergency rehabilitation plan. National Park Service, Glen Jean, WV.
- 2000 Thurmond development concept plan and interpretive prospectus – Amendment. National Park Service, Glen Jean, WV.
- 1999 Grandview development concept plan/interpretive prospectus/ environmental assessment. (NPS D-176) National Park Service, Glen Jean, WV.
- 1997a Resource management plan – New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River. (not adopted) National Park Service, Glen Jean, WV.
- 1997b Visitor experience and resource protection (VERP) framework – a handbook for planners and managers. NPS Denver Service Center, Denver, CO.
- 1996a NPS-28 cultural resource management guideline. National Park Service, Washington, D.C.
- 1996b New River Gorge National River, Gauley River National Recreation Area, and Bluestone National Scenic River, West Virginia, water resource scoping report. (Technical Report NPS/NRWRS/NRTR-96/76.) National Park Service, Water Resources Division, Fort Collins, CO.
- 1995a Baseline water quality data inventory and analysis, New River Gorge National River. National Park Service, Fort Collins, CO.
- 1995b Development concept plan/environmental assessment – Teays. (NPS D-86) National Park Service, Glen Jean, WV.

- 1995c Environmental assessment - Fayette Station: designs for parking areas and comfort stations. National Park Service, Glen Jean, WV.
- 1995d Estimates of non-commercial whitewater use. National Park Service, Glen Jean, WV.
- 1995e Secretary of the Interior's standards for the treatment of historic properties, as amended. National Park Service, Washington D.C.
- 1994a Middle gorge development concept plan/environmental assessment. (NPS D-79A) National Park Service, Glen Jean, WV.
- 1994b New River Gorge National River, Gauley River National Recreation Area, Bluestone National Scenic River: Gypsy Moth Monitoring Project Report 1994. National Park Service, Glen Jean, WV.
- 1994c Reconnaissance vegetation study of the Bluestone, New, and Gauley River Gorge. National Park Service, Glen Jean, WV.
- 1993a National Park Service floodplain management guideline. National Park Service, Washington, D.C.
- 1993b Reconnaissance vegetation study of the Bluestone, New, and Gauley River Gorges. National Park Service, Glen Jean, WV.
- 1993c Winter fecal coliform bacteria study, New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area. (Prepared by Scott Gibson.) National Park Service, Glen Jean, WV.
- 1992a Bluestone National Scenic River and Gauley River National Recreation Area – water quality monitoring program, April – October 1992. (Prepared by R.J. Sullivan.) National Park Service, Glen Jean, WV.
- 1992b Kaymoor development concept plan/environmental assessment. (NPS D-45A) National Park Service, Glen Jean, WV.
- 1992c Thurmond development concept plan/environmental assessment. (NPS D-34A) National Park Service, Glen Jean, WV.
- 1992d Mine and gas well inventory: Gauley River NRA and Bluestone NSR. National Park Service, Glen Jean, WV.
- 1992e Oil and gas development within and adjacent to Gauley River National Recreation Area, with a section on New River Gorge National River. Land Resources Division, Mining and Minerals Branch, Denver, CO.
- 1990a Cunard development concept plan/environmental assessment. (NPS D-34A) National Park Service, Glen Jean, WV.
- 1990b Glade Creek development concept plan/interpretive prospectus. (NPS D-36A) National Park Service, Glen Jean WV.
- 1990c Stone Cliff site development plan/environmental assessment, National Park Service, Glen Jean, WV.
- 1988a Canyon Rim/Burnwood development concept study/environmental assessment. (NPS D-17B) National Park Service, Oak Hill, WV.
- 1988b Deviations to the land protection plan for New River Gorge National River. National Park Service, Philadelphia, PA.
- 1986 Glen Jean headquarters site development plan. National Park Service, Oak Hill, WV.
- 1984 Land protection plan – New River Gorge National River. National Park Service, Oak Hill, WV.

- 1982 New River Gorge National River general management plan. National Park Service, Oak Hill, WV.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service  
1992 National wetlands inventory. U.S. Fish and Wildlife Service, Washington D.C.
- U.S. Department of Transportation, Federal Highway Administration and West Virginia Department of Transportation, Division of Highways  
2004 Record of decision: New River Parkway, I-64 to Hinton – Raleigh and Summers County West Virginia. WV DOT, DOH, Charleston, WV
- 2003 New River Parkway, I-64 to Hinton – Raleigh and Summers Counties, West Virginia final environmental impact statement. (Prepared by Virginia Polytechnic Institute and State University, Department of Landscape Architecture.) WV DOT, DOH, Charleston, WV.
- U.S. Environmental Protection Agency  
1996 Draft environmental justice guidance. U.S. EPA, Washington, D.C.
- U.S. Government Accountability Office  
2006 Major operational funding trends and how selected park units responded to those trends for fiscal years 2001 through 2005. U.S. GAO, Washington, D.C.
- Unrau, H. D.  
1996 Special history study/historic context study. National Park Service. Glen Jean, WV.
- Vanderhorst, J.P.  
2007 Vegetation classification and mapping of New River Gorge National River, West Virginia. Technical Report NPS/NER/NRTR. National Park Service. Philadelphia PA.
- 2003 Roadless block analysis for New River Gorge National River, Final Report. West Virginia Natural Heritage Program, Elkins, WV.
- 2001 Plant communities of the New River Gorge National River, West Virginia (Northern and Southern Thirds). (Non-Game Wildlife and Natural Heritage Program, West Virginia Department of Natural Resources). West Virginia Natural Heritage Program, Elkins, WV.
- Versel, D.E.  
2006 A study of the economic impact of New River Gorge National River on Fayette, Nicholas, Raleigh, and Summers Counties, West Virginia. National Park Service. Glen Jean, WV.
- Virginia Polytechnic Institute and State University  
1998 A use potential study of recreation opportunities and design features for the proposed New River Parkway. WV DOT, Division of Highways, Charleston, WV.
- Voshell, J.R., Jr.  
1985 Trophic basis of production for macroinvertebrates in the New River below Bluestone Dam. Report to West Virginia Department of Natural Resources. Virginia Polytechnic Institute and State University. Blacksburg, VA.
- 1984 The ecology of black flies in the New River and its major tributaries in southern West Virginia. *in* Proceedings. New River Symposium April 12-14, 1984. Boone, North Carolina. National Park Service. Oak Hill, WV.
- Voshell, J.R., Jr., D.J. Orth, S.W. Hiner, and R.S. Easton  
1996 New River Gorge National River long-term ecological monitoring system user manual field and laboratory methods. Virginia Polytechnic Institute and State University, Blacksburg, VA.

- Weaks, T.E., D. Nash, and M. Nowland  
 1997 Lichen and non-vascular flora of New River Gorge National River, West Virginia. Final report. New River Gorge National River. Glen Jean, WV.
- Welsh, S., and D. Wellman  
 2001 Fishes of New River Gorge National River. Final report. New River Gorge National River, Glen Jean, WV.
- West Virginia Department of Transportation  
 2007 West Virginia statewide transportation improvement program (STIP) (federal fiscal years 2008-2013) (proposed)
- 2005 – 2006 West Virginia transportation improvement program (STIP) (federal fiscal years 2006-2008) (various amendments) (approved). Charleston, WV.
- 2006a Fayette County 2006 average daily traffic. Charleston, WV.
- 2006b Raleigh County 2006 average daily traffic. Charleston, WV.
- 2006c Summers County 2006 average daily traffic. Charleston, WV.
- 2005 West Virginia statewide transportation improvement program (STIP) (federal fiscal years 2006-2008) (approved). Charleston, WV.
- 2001 As a matter of fact. Charleston, WV.
- West Virginia Division of Natural Resources  
 2008a Annual boater counts. Division of Water Resources, Charleston, WV.
- 2008b Letter from Barbara Sargent, Environmental Resources Specialist, Wildlife Diversity Program, Charleston, WV, to Deborah Darden, National Park Service, New River Gorge National River, Glen Jean, WV, December 8, 2008.
- 2006 West Virginia integrated water quality monitoring and assessment report 2006. Division of Water and Waste Management, Charleston, WV.
- 2003 [www.wvdnr.gov](http://www.wvdnr.gov)
- 1989 New River Gorge National River: fecal coliform study, April – September 1987. Division of Water Resources, Monitoring Branch, Charleston, WV.
- West Virginia Development Office  
 2003 West Virginia statewide comprehensive outdoor recreation plan. Charleston, WV.
- West Virginia Gap Analysis Program  
 2003 <http://www.nrac.wvu.edu/gap/pub.htm>.
- West Virginia Professional River Outfitters  
 2005 New River Gorge National River general management plan: shaping the next 20 years of the gorge and the economic vitality of her gateway communities. Fayetteville, WV.
- Whisman, Stephen A.  
 1998 Limits of acceptable change river management plan, 1998 annual report. (Prepared for WV Division of Natural Resources.) West Virginia University, Charleston, WV.
- Wiley, Jeffrey B.  
 1992 Flow and solute-transport models for the New River in the New River Gorge National River, West Virginia. (U.S. Geological Survey, Open-File Report 92-65) Charleston, WV.

- 1989 River depths and other characteristics of the New River downstream from Hinton, West Virginia, in New River Symposium, Radford, Virginia, April 20-22, 1989, Proceedings: National Park Service, p. 129-139.
- Wiley, Jeffrey B., and Michael K. Cunningham  
1994 Flood characteristics for the New River in the New River Gorge National River. (US Geological Survey, Open-File Report 93-77) Charleston, WV.
- Wilson, L., and J.M. Purvis  
2003 Water quality monitoring program 1998-2000 - New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area. National Park Service, Glen Jean, WV.
- 2000 Water quality monitoring program 1994-1997 - New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area. National Park Service, Glen Jean, WV.
- Wilson, L., K. Vandersall, and J.M. Purvis  
2006 Water quality monitoring program 2001-2003 - New River Gorge National River, Bluestone National Scenic River, Gauley River National Recreation Area. National Park Service, Glen Jean, WV.
- Wood, J. M.  
1999 Hemlock ecosystem inventory and monitoring project of the New River Gorge National River and Gauley River National Recreation Area. National Park Service, Glen Jean, WV.
- Wood, P. B.  
2001 Characteristics of Allegheny woodrat (*Neotoma magister*) habitat in the New River Gorge National River, West Virginia. Final report. National Park Service, New River Gorge National River. Glen Jean, WV.
- 2000 Point count surveys for birds in hemlock stands at New River Gorge National River. Progress report to Resource Management, New River Gorge National River. Glen Jean, WV.
- Workman, M.E., L.R. Maddex, and D.J. Bonenberger  
2005 Historic resources study, New River Gorge National River. (NERI-02-038 HRS). National Park Service, Glen Jean, WV.
- Wuebber, I., T.J. Powell, and M.L. Alterman  
1993 Historical research and archeological monitoring at Cunard, West Virginia. (Louis Berger & Associates, Inc.). National Park Service. Glen Jean, WV.
- Wuellner, M.J., D.B. Heck and C.D. Cheek  
1996 Documentary research for the rehabilitation of the Thurmond Depot and Southside site development, New River Gorge National River. (John Milner Associates, Inc.) National Park Service. Denver, CO.
- Yuill, A. A.  
1988 Abandoned mine land survey of the New River Gorge National River (3 volumes). Report submitted to the National Park Service, New River Gorge National River. Glen Jean, WV.



## Acronyms

## Acronyms

**ACHP** – Advisory Council on Historic Preservation

**ADT** – average daily trip

**AML** – abandoned mine lands

**API** – Asset priority index

**ATV** – all terrain vehicle

**BMPs** – best management practices

**CBA** – Choosing By Advantages

**CCC** – Civilian Conservation Corps

**CEQ** – Council on Environmental Quality

**CFR** – Code of Federal Regulations

**cfs** – cubic feet per second

**CLI** – Cultural Landscape Inventory

**CLR** – Cultural Landscape Report

**CVB** – Convention and Visitors Bureau

**DO** – Director’s Order

**DCP** – Development Concept Plan

**EA** – Environmental Assessment

**EAP** – Emergency Action Plan

**EIS** – Environmental Impact Statement

**EO** – Executive Order

**EOP** – Emergency Operations Plan

**ESEP** – Early Flood Warning, Search, Rescue, Evacuation and Recovery Plan

**EPA** – U.S. Environmental Protection Agency

**FCI** – Facilities condition index

**FEMA** – Federal Emergency Management Agency

**FHWA** – Federal Highway Administration

**FMSS** – Facility Management Software System

**FONSI** – Finding of No Significant Impact

**FR** – Federal Register

**FTE** – Full-time equivalent (staff positions)

**GAO** – U.S. Government Accountability Office

**GMP** – General Management Plan

**GPRA** – Government Performance and Results Act

**IMBA** – International Mountain Bicycling Association

**LMS** – Land Management System

**LPP** – Land Protection Plan

**MOA** – Memorandum of Agreement

**NAAQS** – National Ambient Air Quality Standards

**NCHA** – National Coal Heritage Area

**NERI** – New River Gorge National River

**NEPA** – National Environmental Policy Act

**NERI** – New River Gorge National River

**NERO** – National Park Service Northeast Region Office

**NHPA** – National Historic Preservation Act

**NOA** – Notice of Availability

**NOI** – Notice of Intent

**NOAA** – National Oceanic and Atmospheric Administration

**NPDES** – National Pollutant Discharge Elimination System

**NPS** – National Park Service

**NR** – National River

**NRCS** – U.S. Department of Agriculture Natural Resources and Conservation Service

**NRPA** – New River Parkway Authority

**NWI** – U.S. Fish and Wildlife Service National Wetland Inventory

**ONPS** – Operations of National Park System

**PEPC** – Planning, Environment and Public Comment System

**PL** – Public Law

**ppm** – parts per million

**ROD** – Record of Decision

**ROW** – right-of-way

**ROD** – Record of Decision

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

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

**SHPO** – State Historic Preservation Officer/Office

**SMCRA** – Surface Mining Control and Reclamation Act

**SR** – West Virginia state road

**SWPPP** – Stormwater Pollution Prevention Plan

**USC** – U.S. Code

**VIP** – Volunteers in Park

**WASO** – National Park Service Washington Office

**WV DEP** – West Virginia Department of Environmental Protection

**WV DNR** – West Virginia Division of Natural Resources

**WV DOT** – West Virginia Department of Transportation

**WV DT** – West Virginia Division of Tourism

**WV GES** – West Virginia Geologic and Economic Survey

**WV SHPO** – West Virginia State Historic Preservation Officer

**WVU** – West Virginia University

**US ACOE** – U.S. Army Corps of Engineers

**US DC** – U.S. Department of Commerce, Bureau of the Census

**US FWS** – U.S. Fish and Wildlife Service

**USGS** – U.S. Geological Survey



## Preparers

## Preparers, Reviewers, and Contributors

### NPS General Management Plan Planning Team

- **New River Gorge National River**

Don Striker, *Superintendent*

Deborah Darden, *Deputy Superintendent*

Dave Bieri, *Sandstone District Interpreter*

Clif Bobinski, *Park Planner*

David N. Fuerst, *Cultural Resource Specialist*

Gary Hartley, *Chief Ranger*

Michael Hartzog, *Sandstone District Maintenance Foreman*

Adrienne Jenkins, *Park Ranger, Interpretation*

Sheryle Lindley, *Project Manager*

Greg Malcolm, *Supervisory Park Ranger*

James Minor, *Facility Manager*

Jennifer Noll, *Sandstone District Ranger*

John Perez, *Biologist*

Robin Perry, *Superintendent's Secretary*

Sonny Perry, *Canyon District Maintenance Foreman*

Greg Phillips, *IT Specialist*

Jesse Purvis, *Fisheries Biologist*

Richard Segars, *Historical Architect*

Frank Sellers, *Canyon District Ranger*

Andrew Steel, *GIS Specialist*

Scott Stonum, *Chief of Resource Management and Planning*

Billy Strasser, *Canyon District Interpreter*

Candace Tinkler, *Chief of Interpretation*

Gene Clare, *Geologist (former)*

Paul Fox, *Automotive Worker (former)*

Calvin Hite, *Superintendent (former)*

Duncan Hollar, *Assistant Chief Ranger (former)*

Mike Hunter, *Deputy Superintendent for Operations (former)*

Lynn Loetterle, *Sandstone District Interpreter (former)*

Peggy Maddy, *Contract Specialist (former)*

Katy Miller, *Librarian (former)*

Lorrie Sprague, *Public Affairs Specialist (former)*

Ken Stephens, *Supervisory Natural Resource Specialist (former)*

Rob Turan, *Sandstone District Ranger (former)*

Matthew Varner, *Wildlife Biologist (former)*

Lila Walker, *Administrative Officer (former)*

Lizzie Watts, *Canyon District Interpreter (former)*

- **NPS New River Gorge Land Acquisition Project Office**

Donnie Wilson, *Realty Specialist*

Bill Sindelar, *Supervisory Realty Specialist*

- **Northeast Regional Office**

Dennis Reidenbach, *Regional Director*

Elizabeth Igleheart, *National Register Coordinator*

Jacki Katzmire, *Environmental Protection Specialist*

Robert McIntosh, *Associate Regional Director*

Terrence Moore, *Chief, Park Planning and Special Studies*

Cheryl Sams O'Neil, *Resource Planning Specialist*

David Reynolds, *Deputy Associate Regional Director, Natural Resources and Science*

Chuck Smythe, *Ethnographer*

Brian Campbell, *Cultural Anthropologist (former)*

Kathy Dilonardo, *Chief of Interpretation (former)*

Pat Iolavera, *Former Community Planner (former)*

### **Contractor Planning Team**

- **Wallace Roberts & Todd, LLC**

Elizabeth Clarke, AICP, *Planner (Project Manager and Author)*

Andrea Mazzocco, *Graphic Designer (Graphics)*

Doris Rios, *Graphic Designer (Graphics)*

Eric Tamulonis, ASLA, *Landscape Architect (Assistance with Public Involvement)*

- **ICON architecture, inc.**

Jonathan Lane, AIA, AICP, *Architect and Planner (Assistance with Alternatives Development)*

- **Devenomics**

David Versel, *Economist*

### **Other Contributors**

- Carolyn Mahan, PhD, *Biologist, Pennsylvania State University at Altoona*

- Michael Workman, PhD, *Historian, Institute for the History of Technology and Industrial Archaeology, West Virginia University*

- Mary Hufford, PhD, *Ethnographer, Center for Folklore and Ethnography, University of Pennsylvania*



## Glossary

## Glossary

**Accessibility.** Accessibility occur when individuals with disabilities are able to reach, use, understand, or appreciate NPS programs, facilities, and services, or to enjoy the same benefits that are available to persons without disabilities. (see also, “universal design”)

**Affected environment.** The existing biological, physical, cultural, social, and economic conditions that are subject to direct and indirect changes which result from actions described in alternatives under consideration.

**Alternative.** A possible course of action, one of several ways to achieve an objective or vision. The term is used in a GMP to describe different management actions.

**Area-specific management prescriptions.** Area-specific guidance about the desired resource conditions, visitor experience opportunities, and appropriate kinds and levels of management, development, and access (modes of transportation) for each area of a park, based on how it is zoned; also the kinds of changes needed to move from the existing to the desired conditions.

**Best management practices (BMPs).** Practices that apply the most current means and technologies available to not only comply with mandatory environmental regulations, but also maintain a superior level of environmental performance.

**Carrying capacity.** The type and level of visitor use that can be accommodated while sustaining the desired resource and visitor experience conditions in a park.

**Cooperating agency.** A federal action other than the one preparing the National Environmental Policy Act document (lead agency) that has jurisdiction over the proposal by virtue of law or special expertise and that has been deemed a cooperating agency by the lead agency. State or local governments, and/or Indian tribes, may be designated cooperating agencies as appropriate.

**Cultural landscape.** A geographic area (including both cultural and natural resources and the wildlife and domestic animals therein) associated with a historic event, activity or person or exhibiting other cultural or aesthetic values. There are four types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes.

**Cultural resources.** Aspects of a cultural system that are valued by or significantly representative of a culture or that contain significant information about a cultural. A cultural resource may be a tangible entity or a cultural practice. Tangible cultural resources are categorized as districts, sites, buildings, structures and objects for the National Register of Historic Places, and as archeological resources, cultural landscapes, structures, museum objects, and ethnographic resources for NPS management purposes.

**Cumulative actions.** Actions that, when viewed with other actions in the past, the present, or the foreseeable future regardless of who has undertaken or will undertake them, have an additive impact on the resource the proposal would affect.

**Cumulative impact.** The impacts of cumulative actions.

**Desired condition.** A qualitative description of the integrity and character for a set of resources and values, including visitor experiences, that park management has committed to achieve and maintain.

**Developed area.** An area managed to provide and maintain facilities (e.g. roads, campgrounds, housing) serving park managers and visitors. Includes areas where park development or intensive use may have substantially altered the natural environment or the setting for culturally significant resources.

**Direct effect.** An impact that occurs as a result of the proposed action or alternative in the same place and at the same time as the action.

**Discovery sites.** Cultural resource sites in remote areas of the park which visitors would come upon as they experience the park. Treatment would seek to balance natural and cultural resource management demands with the goal of maintaining ruins and mitigating degradation of cultural resources by natural resources and processes and by visitor use. Interpretive media would likely be present.

**Environmental consequences.** The scientific and analytic basis for comparing alternatives in an environmental impact statement, based on their environmental effects, including any unavoidable adverse effects. Environmental consequences include short-term, long-term, and cumulative impacts to ecological, aesthetic, historical, cultural, economic, and social environments.

**Environmental impact statement.** A detailed National Environmental Policy Act document that is prepared when a proposal or alternatives have the potential for significant impact on the human environment.

**Ethnographic resources.** Objects and places, including sites, structures, landscapes, and natural resources, with traditional cultural meaning and value to associated peoples. Research and consultation with people identifies and explains the places and things they find culturally meaningful. Ethnographic resources eligible for the National Register are called traditional cultural properties.

**Environmentally preferred alternative.** Of the action alternatives analyzed, the one that would best promote the policies in NEPA Section 101.

**Fundamental resources and values.** Those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes, including opportunities for visitor enjoyment, determined to warrant primary consideration during planning and management because they are critical to achieving the park's purpose and maintaining its significance.

**General Management Plan (GMP).** A National Park Service planning document which clearly defines direction for resource preservation and visitor use in a park, and serves as the basic foundation for decision making. GMPs are developed with broad public involvement.

**Historic site.** A landscape significant for its association with a historic event, activity or person.

**Indicators of user capacity.** Specific, measurable physical, ecological, or social variables that can be measured to track changes in conditions caused by public use, so that progress toward attaining the desired conditions can be assessed.

**Impact topics.** Specific natural, cultural, or socioeconomic resources that would be affected by the proposed action or alternatives (including no action). The magnitude, duration, and timing of the effect to each of these resources is evaluated in the impact section of an EIS.

**Impairment.** An impact so severe that, in the professional judgment of a responsible NPS manager, it would harm the integrity of park resources or values and violate the 1916 NPS Organic Act.

**Indirect effect.** Reasonably foreseeable impacts that occur removed in time or space from the proposed action.

**Interpretation.** Activities or media designed to help people understand, appreciate, enjoy, and care for the natural and cultural environment.

**Issue.** Some point of debate that needs to be decided. For GMP planning purposes issues can be divided into “major questions to be answered by the GMP” (also referred to as the decision points of the GMP) and the “NEPA issues” (usually environmental problems related to one or more of the planning alternatives).

**Lead agency.** The agency either preparing or taking primary responsibility for preparing the National Environmental Policy Act document.

**Management concept.** A brief, inspirational statement of the kind of place a park should be (a “vision” statement).

**Management prescription.** A description of the specific resource conditions and visitor experiences along with appropriate kinds and levels of management, use, and development for each area of a park that are to be achieved and maintained.

**Mitigation.** Modification of a proposal to lessen the intensity of its impact on a particular resource.

**No Action Alternative.** An alternative in an environmental impact statement that continues the current management direction. This alternative serves as a benchmark against which action alternatives are compared.

**Notice of intent.** The notice submitted to the *Federal Register* that an environmental impact statement will be prepared. It describes the proposed action and alternatives, identifies a contact person in the National Park Service, and gives time, place, and descriptive details of the agency’s proposed scoping process.

**Other important resources and values.** Those attributes that are determined to be particularly important to park management and planning, although they are not related to the park’s purpose and significance.

**Park purpose.** The specific reason(s) for establishing a particular park.

**Preferred alternative.** The alternative an NPS decision-maker has identified as preferred at the draft EIS stage. It is identified to show the public which alternative is likely to be selected to help focus its comments.

**Primary interpretive themes.** The most important ideas or concepts to be communicated to the public about a park.

**Projected implementation costs.** A projection of the probably range of recurring annual costs, initial one-time costs, and life-cycle costs of plan implementation.

**Proposal.** The stage at which the National Park Service has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal. The goal can be a project, plan, policy, program, and so forth. The National Environmental Policy Act process begins when the effects can be meaningfully evaluated.

**Record of decision.** The document that is prepared to substantiate a decision based on an environmental impact statement. It includes a statement of the decision made, a detailed discussion of decision rationale, and the reasons for not adopting all mitigation measures analyzed, if applicable.

**River left.** Includes the shoreline and adjacent upland on the left side of the New River when looking downstream.

**River right.** Includes the shoreline and adjacent upland on the right side of the New River when looking downstream.

**Significance.** Statements of why, within a national, regional, and systemwide context, the park's resources and values are important enough to warrant national park designation.

**Scoping.** Internal NPS decision-making on issues, alternatives, mitigation measures, the analysis boundary, appropriate level of documentation, lead and cooperating agency roles, available references and guidance, defining purpose and need, and so forth. External scoping is the early involvement of interested and affected public.

**Special mandates.** Legal mandates specific to the park that expand upon or contradict a park's legislated purpose.

**Stakeholders.** Individuals and organizations that are actively involved in the project, or whose interests may be positively or negatively affected as a result of the project execution/completion. They may also exert an influence over the project and its results. For GMP planning purposes, the term stakeholder includes NPS officials/staff as well as public and private sector partners and the public, which may have varying levels of involvement.

**Universal design.** The design of products and environments to be usable by all people to the greatest extent possible, without the need for adaptation or specialized design.

**User capacity.** The types and levels of visitor and other public use that can be accommodated while sustaining the desired resource conditions and visitor experiences that complement the purposes of a park.

**Visitor experience.** The perceptions, feeling, and interactions that visitors have with the park's environment and programs. The experience is affected by the setting, the types and levels of activities permitted, and the interpretive techniques used to convey park themes.



# Index

## Index

**Access (also see River access and Disabled access)**, 1-23 to 1-24, 1-53 to 1-54, 2-14 to 2-15, 2-28, 3-91 to 3-95, 2-56 to 2-57, 2-58, 2-81 to 2-82, 2-98 to 2-99, 2-120 to 2-121, 2-146 to 2-148, 3-91 to 3-95, 4-8, 4-60 to 4-63, 4-120 to 4-125, 4-171 to 4-175, 4-224 to 4-228, 4-280 to 4-285, F-9 to F-11

**Affected environment**, ix, 1-6 to 1-9, 3-1 to 3-104

**Agency coordination**, 1-18, 5-1 to 5-11, C-1 to C-14

**Air quality**, 1-29 to 1-30, 2-33, 2-41

**Alternatives**, iii to vi, 2-1 to 2-200

**Alternatives comparison**, 2-3 to 2-6, 2-181 to 2-193

**Alternatives considered but dismissed**, 2-165 to 2-167

**Alternatives development**, 2-2 to 2-3

**Applicable federal and state laws, regulations, and policies**, B-1 to B-8

**Archeological resources**, iv, 1-7 to 1-8, 1-21, 2-12 to 2-13, 2-34, 3-34 to 3-36, 3-47 to 3-51, 4-6, 4-42 to 4-45, 4-95 to 4-98, 4-153 to 4-155, 4-203 to 4-206, 4-258 to 4-260

**Biking**, viii to ix, 1-23, 2-14, 2-55 to 2-56, 2-80, 2-98, 2-120, 2-145 to 2-146, 2-167 to 2-170, 3-81, 3-93

**Boundary**, vi, 1-4, 1-41 to 1-42, 2-42, 2-61, E-1 to E-20

**Camping**, ix, 2-58, 2-81 to 2-82, 2-99, to 2-100, 2-121 to 2-122, 2-148 to 2-149, 2-178, 3-76 to 3-78

**Choosing by advantages**, 2-7 to 2-8

**Climate change**, 1-34 to 1-36, 2-41, 2-65 to 2-66

**Climbing**, 1-50, 3-79 to 3-80

**Collections**, 1-38, 1-51, 2-13, 2-35

**Communities (local)**, 1-51 to 1-53, 2-16, 2-17, 2-39, 2-49 to 2-51, 2-59 to 2-61, 2-82 to 2-83, 2-100 to 2-102, 2-122 to 2-123, 2-149 to 2-151, 3-65, 4-7, 4-54 to 4-58, 4-110 to 4-117, 4-165 to 4-167, 4-217 to 4-220, 4-272 to 4-275

**Costs**, 2-18 to 2-19, 2-85 to 2-86, 2-103 to 2-105, 2-126 to 2-127, 2-153 to 2-155, 2-179 to 2-180

**Cultural landscape(s)**, iv, 1-7 to 1-8, 1-21, 2-12 to 2-13, 2-34, 2-35, 3-51 to 3-53, 4-6, 4-45 to 4-47, 4-98 to 4-102, 4-155 to 4-158, 4-206 to 4-209, 4-261 to 4-265

**Cultural resources (also see archeological resources, historic structures, cultural landscapes, ethnographic resources, historic contexts)**, iv, 1-7 to 1-8, 1-21, 2-12 to 2-13, 2-34 to 2-35, 2-48 to 2-49, 2-78 to 2-79, 2-96, 2-118, 2-142 to 2-143, 3-34 to 3-59, 3-85 to 3-86, 4-6, 5-9

**Cumulative impacts**, 4-17 to 4-18

**Consistency with National Environmental Policy Act**, 2-196 to 2-199

**Desired conditions and needed changes**, 2-12, 2-18, 2-20 to 2-23, 2-29 to 2-42, 2-43, 2-69 to 2-72, 2-77, 2-85, 2-87 to 2-90, 2-95, 2-103, 2-106 to 2-111, 2-117, 2-125, 2-128 to 2-133, 2-141, 2-153, 2-156 to 2-164

**Disabled access**, 2-15 to 2-16, 2-38 to 2-39, 2-58, 2-81, 2-99 to 2-100, 2-121, 2-148 to 2-149, 3-86 to 3-87

**Ecologically critical and unique natural resources**, 1-29

**Economic impact of the park**, 3-68

**Educational programs**, 3-90 to 3-91

**Energy requirements and conservation potential**, 1-36 to 1-37

**Environmental consequences**, ix to xiii, 2-194 to 2-195, 4-1 to 4-290

**Environmental justice**, 1-39

**Environmentally preferred alternative**, 2-198 to 2-199

**Equestrian use**, 1-22 to 1-23, 2-14, 2-55, 2-80, 2-97 to 2-98, 2-119, 2-145, 3-81 to 3-82

**Ethnographic resources**, iv, 1-7 to 1-8, 1-21, 2-12 to 2-13, 2-34, 2-35, 3-57 to 3-59, 4-6, 4-49 to 4-51, 4-105 to 4-107, 4-160 to 4-162, 4-212 to 4-214, 4-267 to 4-269

**Fire**, 2-26, 2-31 to 2-32, 2-45, 2-46 to 2-47, 2-58, 2-67, 3-20

**Fishing**, 3-82 to 3-83

**Foundation for planning**, 1-10 to 1-15

**Floodplains**, 3-7 to 3-11, 4-4, 4-23 to 4-25, 4-70 to 4-72, 4-133 to 4-135, 4-183 to 4-185, 4-236 to 4-238

**Fundamental resources and values**, 1-11 to 1-13

**Future plans**, 2-177 to 2-179

**Geology**, 2-29, 3-2 to 3-7, 4-3, 4-21 to 4-23, 4-67 to 4-70, 4-130 to 4-132, 4-180 to 4-182, 4-233 to 4-235

**Historic contexts**, 3-36 to 3-46

**Historic structures**, iv, 1-7 to 1-8, 1-21, 2-12 to 2-13, 2-34, 2-42, 3-53 to 3-56, 4-6, 4-47 to 4-49, 4-102 to 4-105, 4-158 to 4-160, 4-209 to 4-212, 4-265 to 4-267

**Hiking**, 1-22 to 1-23, 2-14, 2-55, 2-67, 2-80, 2-97 to 2-98, 2-119, 2-143 to 2-145, 2-177 to 2-178, 3-80 to 3-81

**Hunting**, vii to viii, 1-23, 2-14, 2-51 to 2-55, 2-80 to 2-81, 2-98, 2-120, 2-146, 2-165 to 2-167, 3-31 to 3-32, 3-83 to 3-85

**Impact topics**, 1-28 to 1-39, 3-1, 4-1

**Impairment**, 4-19 to 4-20

**Indian Sacred Sites**, 1-38 to 1-39

**Indian Trust Resources**, 1-38

**Indicators and Standards**, 2-170 to 2-174

**Interpretation**, 1-14, 3-88 to 3-91

**Irreversible and irretrievable commitments of resources**, 4-66, 4-129 to 4-130, 4-178, 4-231 to 4-232, 4-288

**Issues and concerns**, ii to iii, 1-18 to 1-27

**Land protection**, 1-25, 2-42, 2-61 to 2-62, 2-83 to 2-84, 2-101, 2-123, 2-150

**Land use**, 3-65 to 3-67

**Legislative history**, 1-3

**Legislative and policy requirements**, 1-15

**Lightscape**, 1-31 to 1-32, 2-33

**Local appreciation of the park**, 1-27, 2-17, 2-39, 2-63 to 2-65, 2-84, 2-101, 2-123, 3-69

**Mandates**, 1-15, A-10 to A-12

**Management zoning**, 2-9, 2-24 to 2-27, 2-28, 2-43, 2-49, 2-77, 2-117, 2-141

**Methods for Analyzing Impacts and Impact Thresholds**, 4-2 to 4-16

**Mitigation measures**, 2-172, 2-175 to 2-177

**Natural resources**, iii, 1-6 to 1-7, 1-20, 2-12, 3-2 to 3-34

**Natural and depletable resources**, 1-37

**New River Bridge**, 2-57 to 2-58, 3-87

**New River Parkway**, 1-53 to 1-54, 2-15

**Nightskies**, 1-30 to 1-31, 2-33

**Park enabling legislation**, 1-1, A-1 to A-10

**Park operations**, 2-41 to 2-42, 3-95 to 3-98, 4-8, 4-63 to 4-66, 4-125 to 4-128, 4-175 to 4-178, 4-228 to 4-231, 4-285 to 4-287

**Park purpose**, 1-10, 3-1

**Park significance**, 1-11 to 1-13, 3-1

**Park vision**, 1-16 to 1-17

**Partnerships**, iv, 1-17, 1-26 to 1-27, 2-17 to 2-18, 2-35 to 2-41, 2-49 to 2-51, 2-59 to 2-61, 2-63 to 2-68, 2-84 to 2-85, 2-101 to 2-103, 2-123 to 2-125, 2-152, 3-98 to 3-103

**Preferred Alternative**, xiii, 2-3 to 2-8

**Project purpose and need**, i to ii, 1-1 to 1-2

**Public involvement**, 1-18 to 1-20, 5-1 to 5-8

**Rare, threatened, and endangered species**, 3-33 to 3-34, 4-5, 4-37 to 4-41, 4-88 to 4-92, 4-147 to 4-150, 4-197 to 4-200, 4-251 to 4-255, 5-10, F-4 to F-8

**Recipients of Draft GMP/EIS**, 5-11 to 5-14

**Regional context**, 1-4 to 1-6

**Regional trail system**, 2-67

**Relationship between short-term uses of the environment and long-term productivity**, 4-67, 4-129, 4-179, 4-232, 4-288 to 4-289

**Relationship to other plans and projects**, 1-42 to 1-55

**Relevance of the park to local visitors**, 1-27, 2-17, 2-39, 2-63 to 2-65, 2-84, 2-101, 2-123, 3-69

**Resource management**, 2-12 to 2-13, 2-29 to 2-35, 2-43 to 2-51, 2-77 to 2-80, 2-95 to 2-97, 2-117 to 122, 2-141 to 2-143

**Resource stewardship**, 2,12, 2-43, 2-77, 2-95, 2-117, 2-141, 2-178 to 2-179

**River Access**, 2-58, 2-81 to 2-82, 2-99 to 2-100, 2-121 to 2-122, 2-148 to 2-149

**Scenic Resources**, 1-16, 1-21 to 1-22, 1-50, 2-13, 2-35, 2-49 to 2-51, 2-79 to 2-80, 2-96 to 2-97, 2-118, 2-143, 3-59 to 3-61, 4-6, 4-41 to 4-42, 4-92 to 4-95, 4-150 to 4-153, 4-200 to 4-203, 4-255 to 4-258

**Scoping**, 1-18 to 1-20, 5-1 to 5-8

**Socio-economic environment**, 1-25, 3-61 to 3-69, 4-6 to 4-7, 4-51 to 4-53, 4-107 to 4-110, 4-162 to 4-164, 4-214 to 4-217, 4-269 to 4-272

**Soils**, 1-33, 3-6 to 3-7, 4-21 to 4-23, 4-67 to 4-70, 4-130 to 4-132, 4-233 to 4-235, F-1

**Soundscapes**, 1-32 to 1-33, 2-33

**Special park designations**, A-13 to A-14

**Special events**, 3-87 to 3-88

**Stewardship (of private land within the park boundary)**, 1-25 to 1-26, 2-17, 2-49 to 2-51, 2-62 to 2-63, 2-84, 2-101, 2-123, 2-150

**Tourism**, 2-17, 2-66 to 2-67, 2-84, 2-103, 2-125, 2-152

**Tribal Coordination**, 5-9

**Unavoidable Adverse Impacts**, 4-66, 4-128, 4-178, 4-231, 4-288

**Vegetation**, 2-31 to 2-33, 2-35, 2-43, 2-46 to 2-47, 2-77 to 2-78, 2-95 to 2-96, 2-117, 2-141 to 2-142, 3-15 to 3-22, 4-4, 4-29 to 4-31, 4-77 to 4-80, 4-138 to 4-141, 4-188 to 4-191, 4-241 to 4-245

**Visibility**, 1-30 to 1-31, 2-33

**Visitation**, 3-69 to 3-72

**Visitor experience**, 1-8 to 1-9, 1-17, 1-22, 2-9 to 2-12, 2-35 to 2-38, 2-43, 2-44 to 2-46, 2-73 to 2-77, 2-91 to 2-95, 2-112 to 2-117, 2-134 to 2-141, 3-72 to 3-86, 4-7, 4-58 to 4-60, 4-117 to 4-120, 4-168 to 170, 4-220 to 4-223, 4-276 to 4-279

**Visitor orientation**, 2-9, 2-77, 2-95, 2-116 to 2-117, 2-135, 3-88 to 3-89

**Visitor use and visitor facilities**, iv, 1-24, 2-14 to 2-16, 2-38 to 2-39, 2-51 to 2-58, 2-80 to 2-82, 2-97 to 2-101, 2-119 to 2-122, 2-143 to 2-149, 3-69 to 91, 4-7, 4-58 to 4-60, 4-117 to 4-120, 4-168 to 170, 4-220 to 4-223, 4-276 to 4-279

**Water quality**, 1-20 to 1-21, 1-50, 1-55, 2-12, 2-29 to 2-30, 2-47 to 2-48, 2-78, 2-96, 2-117, 2-142, 3-11 to 3-15, 4-4, 4-26 to 4-28, 4-73 to 4-77, 4-135 to 4-138, 4-185 to 4-188, 4-239 to 4-241, F-2 to F-3

**Wetlands**, 1-28 to 1-29, 2-31

**Whitewater paddling**, 3-74 to 3-76

**Wild and Scenic River Resources**, 1-37

**Wilderness**, vi to vii, 1-37, 1-39 to 1-40

**Wildlife, aquatic**, 2-31 to 2-32, 3-22 to 3-27, 4-5, 4-31 to 4-34, 4-80 to 4-84, 4-141 to 4-144, 4-191 to 4-194, 4-245 to 4-247

**Wildlife, terrestrial**, 2-32 to 2-33, 3-27 to 3-33, 4-5, 4-34 to 4-37, 4-84 to 4-88, 4-144 to 4-147, 4-194 to 4-197, 4-248 to 4-251



**New River Gorge National River**  
**National Park Service**  
2009