



New River Gorge National River
Gauley River National Recreation Area
Bluestone National Scenic River

CONNECTING THE PARKS WITH THEIR GATEWAY COMMUNITIES – CONCEPT PLAN

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2012

FORWARD

Funding for this concept plan was provided through the NPS Park Roads and Parkways (PRP) Alternative Transportation Program (category III funding), an element of the Federal Highway Administration (FHWA) Federal Lands Highway Program. The planning team included NPS personnel at New River Gorge National River (NERI), Gauley River National Recreation Area (GARI), and Bluestone National Scenic River (BLUE), with contractor assistance (Wallace Roberts & Todd, LLC). Individuals in the parks' gateway communities with interests in developing trail connections to the parks collaborated with the NPS in this effort by sharing their visions and ideas about how to make the connections happen.

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Appendix A: Resources

ACRONYMS

ADA	Americans with Disabilities Act
AASHTO	American Association of State Highway Transportation Officials
AIM	Ansted Improvement Motivators
ATV	all-terrain vehicle
BLUE	Bluestone National Scenic River
BSA	Boy Scouts of America
GARI	Gauley River National Recreation Area
GET	Great Eastern Trail
IMBA	International Mountain Bicycling Association
NCHA	National Coal Heritage Area
NCHAA	National Coal Heritage Area Authority
NEPA	National Environmental Policy Act
NERI	New River Gorge National River
NPS	National Park Service
NR	national river
NRA	national recreation area
NRCS	(U.S.D.A.) Natural Resources Conservation Service
NSR	national scenic river
RTCA	Rivers, Trails, and Conservation Assistance (Program)
SP	state park
UATV	utility all-terrain vehicle

introduction 1

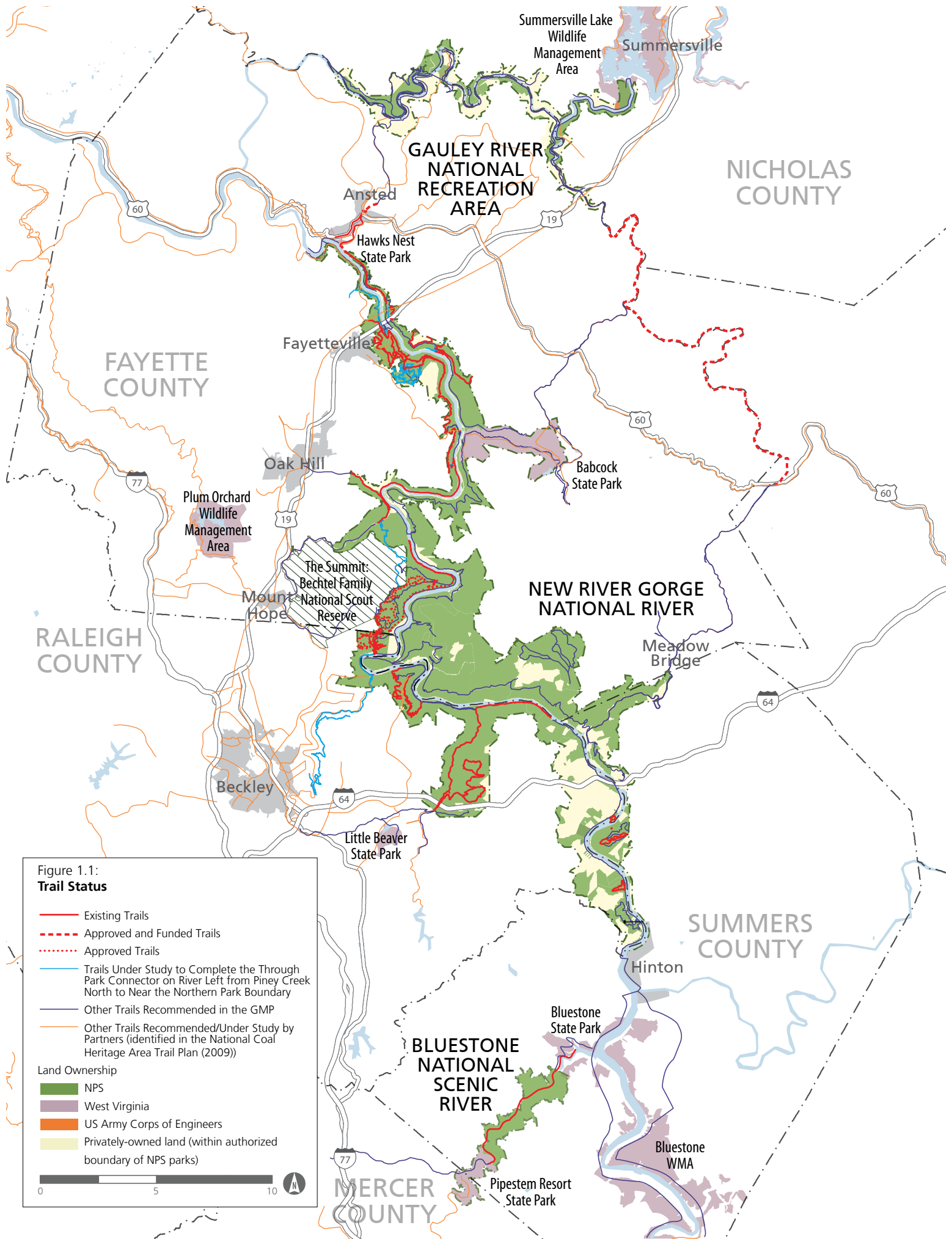


Figure 1.1:
Trail Status

- Existing Trails
 - - - Approved and Funded Trails
 - ... Approved Trails
 - Trails Under Study to Complete the Through Park Connector on River Left from Piney Creek North to Near the Northern Park Boundary
 - Other Trails Recommended in the GMP
 - Other Trails Recommended/Under Study by Partners (identified in the National Coal Heritage Area Trail Plan (2009))
- Land Ownership
- NPS
 - West Virginia
 - US Army Corps of Engineers
 - Privately-owned land (within authorized boundary of NPS parks)



introduction

1

The three units of the national park system in southeastern West Virginia offer remarkable opportunities for visitors to explore the natural and scenic resources of the New River, the Gauley River, and the Bluestone River, three of the nation's most dramatic and scenic rivers. Over 1.5 million people visit these parks annually, participating in a variety of recreational activities such as whitewater rafting, rock climbing, hiking, bicycling, camping, fishing, and wildlife viewing. History reveals itself as visitors enjoy these experiences – particularly at New River Gorge National River – through encounters with remnants of the many coal communities and mining operations that flourished in the New River coal field during the late nineteenth and early twentieth centuries.

Recent management planning for the parks has recommended that the NPS and its partners explore ways in which visitors can better access the parks via all modes of transportation – private vehicles, buses, trains, bicycles, on foot, and by boat. Of particular interest is expanding visitor access by foot and by bicycle from the parks' gateway communities. NPS and the gateway communities want to enhance trail connections to the parks for their residents and for visitors. They want to better enable visitors to get to the parks, travel within the parks, and go from park to park via hiking and biking trails. With such connections visitors could have a multi-day experience hiking or biking from the southern end of Bluestone National Scenic River to New River Gorge National River to the Gauley River National Recreation Area. Additional connections could link to state parks, wildlife management areas, and other attractions in the area.

Long-term development of the Great Eastern Trail (GET) by others will ultimately provide a connection well beyond the parks and their gateways, extending south to the Florida National Scenic Trail (at the southern Alabama border) and north to the North Country National Scenic Trail (in the Finger Lakes region of central New York).

1.1 CONNECTING THE PARKS WITH THEIR GATEWAY COMMUNITIES – PURPOSE AND NEED

The NPS office in Glen Jean – which manages West Virginia's three units of the national park system – has received joint funding to develop a concept plan for a network of trails that would connect the three parks with their gateway communities, neighboring state parks, and other public lands. The funding is to support development of a concept plan whose purposes are to:

- provide the NPS and its partners with a shared vision of what a regional trail network would include
- identify the scope of actions needed to plan, develop, and manage the regional trail network
- identify potential partners for the trails included in the network

The concept plan is needed to foster interest in the trail network concept and to provide the basis for a dialogue among potential partners about how to move forward with planning, development, and management of a regional trail network.

1.2 SETTING AND STUDY AREA

1.2.1 Setting

West Virginia's three national park units are located in the Appalachian Mountains of southern West Virginia (figure 1.1). Nine mountain counties compose the southern West Virginia region, including Raleigh, Mercer, Fayette, Greenbrier, Monroe, McDowell, Nicholas, Wyoming, and Summers Counties. The parks encompass land within five of these counties (Raleigh, Fayette, Mercer, Nicholas, and Summers) and adjoin the cities of Beckley and Hinton and the town of Fayetteville. Beckley is the largest city in the region and is its major economic and cultural center. Major roads providing access to the region converge in



The Headhouse Trail follows a gravel administrative road 0.7-miles from the headhouse parking area to the entrance of the Nuttall mine and top of the coal conveyor. At the Nuttall coal mine, exhibits describe the mine operation and remnant historic structures.

Beckley, including the West Virginia Turnpike (I-77/I-64), U.S. Route 19, and Interstate 64 (I-64). Both U.S. Route 19 and I-64 pass through New River Gorge National River just outside of Beckley.

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

Despite its industrial heritage southern West Virginia remains "wild and wonderful". Much of the area is densely forested rugged terrain, with free-flowing streams and rivers that cut through the Appalachian plateau forming some of the most beautiful river canyon scenery in the eastern United States. The New River flows north through the region converging with the Gauley River to form the Kanawha River at Gauley Bridge in Fayette County. The Greenbrier River is a major tributary to the

New River on the south near the city of Hinton. Recreation opportunities are extensive within a network of public recreation lands and natural areas. Three national park units, ten state parks, and nine state forests are located within the region. Sections of the Monongahela National Forest lie at its eastern edge in Greenbrier and Nicholas Counties. The Gauley River and the New River offer some of the best whitewater paddling and rock climbing opportunities in the United States.

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

1.2.2 Study Area

The trail connections concept plan considers options for regional trail connections from communities, state parks, and other public lands within Raleigh, Mercer, Fayette, Nicholas, and Summers Counties to New River Gorge National River, Gauley River National Recreation Area, and Bluestone National Scenic River (figure 1.1). For purposes of developing the concept plan this area is referred to as the New River Gorge area.

NEW RIVER GORGE NATIONAL RIVER

New River Gorge National River (NR) (figure 1.2) encompasses approximately 72,000 acres within a 53-mile corridor along the New River, extending from Hinton to Hawks Nest State Park in Summers, Raleigh, and Fayette Counties, West Virginia. Congress established the park in 1978 (Public Law 95-625, 11/20/78). The park purposes are to (NPS 2009b):

- preserve an important free-flowing segment of the New River
- preserve, protect, and conserve outstanding resources and values in and around the New River Gorge, including geologic and hydrologic features, terrestrial and aquatic ecosystems, historic and archeological resources, cultural heritage, and scenic character
- provide opportunities for public understanding, appreciation, and enjoyment of the park's natural, cultural, scenic, and recreational resources and values

GAULEY RIVER NATIONAL RECREATION AREA

Gauley River National Recreation Area (NRA) (figure 1.3) encompasses approximately 11,500 acres within a 25.1-mile corridor along the Gauley River and a 5.5-mile corridor along the Meadow River in Fayette and Nicholas Counties, West Virginia. Congress established the park in 1988 (Public Law 100-534, 10/26/88). The park's purposes are 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
- protect and preserve the scenic, recreational, geological, and fish and wildlife resources of the Gauley River and its tributary, the Meadow River

BLUESTONE NATIONAL SCENIC RIVER

The Bluestone National Scenic River encompasses a 10.5-mile corridor along the Bluestone River, extending from a point two miles upstream of the Summers and Mercer County line (near the town of Lerona) downstream to the maximum summer pool elevation of Bluestone Lake. Congress established the river as a national scenic river in 1988 under the Wild and Scenic Rivers Act (Public Law 100-534 10/26/88). All national scenic rivers are established for the purpose of protecting for the present, and preserving for the future, undeveloped free-flowing rivers that possess outstandingly remarkable scenic, natural, cultural, geological, and recreational values. The Bluestone is recognized specifically for its scenic values.

1.3 EXISTING AND PROPOSED TRAILS

1.3.1 Existing Trails

NEW RIVER GORGE NATIONAL RIVER

Among the three NPS units, the New River Gorge NR offers the most extensive network of trails and related amenities. Amenities include trailheads, parking, interpretive signage, and brochures. Ranger-led programs and self-guided activities are offered along many of the park's trails. Major trail networks include:

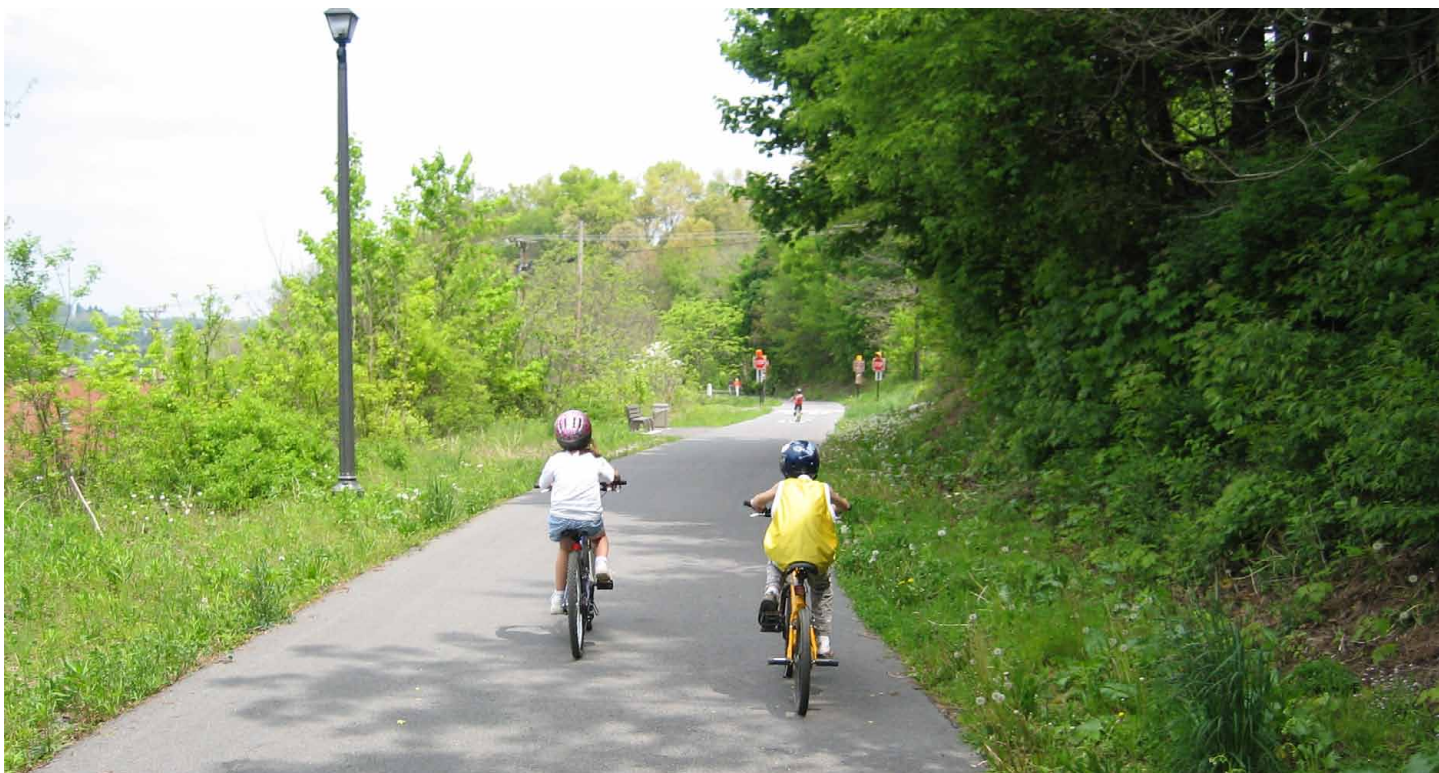
- Grandview Trails
- Glade Creek Trails
- Sandstone Brooks Area Trails
- Fayetteville Area Trails
- Thurmond-Stone Cliff-Cunard Area Trails
- Nuttallburg Trails

According to the 2004 Visitors Services Project Visitor Survey (Manni et al 2005), Grandview and Canyon Rim (now part of the Grandview Trails network) are the most used trail networks.



The Kaymoor Trail descends almost 400 vertical feet from a trailhead at the rim of the gorge to Kaymoor, an abandoned mine site.

(image: "june23chuck 013." Photograph. Chuck Holton. Available from Flickr: <http://www.flickr.com/photos/rangerholton/173897501/>)



Maintained by the city of Beckley, the 3-mile Beckley Rail-Trail provides a hike/bike connection along an abandoned branch of the Chesapeake & Ohio Railroad.

(image: "biking beckley 013" Photograph. ChuckHolton. Available from Flickr: <http://www.flickr.com/photos/rangerholton/144158557/>)

GAULEY RIVER NATIONAL RECREATION AREA

The Gauley River NRA currently lacks a formal trail network and trail-related amenities. The Fisherman's Trail at Tailwaters is the only formal trail in the park. NPS has acquired portions of the planned Through Park Trail, including segments of the Gauley River Rail-Trail and the Meadow River Rail-Trail. Many other informal trails follow old woods roads and historic railroad grades throughout the park, some on public land and some on private land. Trail use information is not available.

BLUESTONE NATIONAL SCENIC RIVER

The Bluestone NSR trail network is composed of a through park hiking trail (Bluestone Turnpike Trail) which parallels the Bluestone River. The 9.5-mile trail connects to Bluestone State Park on the north and to Pipestem Resort State Park on the south. The Bluestone Turnpike Trail trailhead is located within Bluestone State Park. Trail use information is not available.

TRAILS OUTSIDE THE PARKS

Major trails located outside the NPS units include Hawks Nest Rail-Trail, Beckley Rail-Trail, White Oak Rail-Trail, and trail networks at Little Beaver State Park and Babcock State Park.

1.3.2 Proposed Trails

NEW RIVER GORGE NATIONAL RIVER – PROPOSED TRAILS

Trail Improvements Scheduled for Summer 2013

NPS is currently completing final design and NEPA compliance for several trail segments that will:

- connect existing sections of the Through Park Connector Trail on river left¹ (from Piney Creek to near the northern park boundary)
- provide recreational experiences for the public that park management has identified as having high priority for providing recreational experiences

NPS plans to construct these trail segments in the summer of 2013 using volunteer labor.

¹"River left" includes the shoreline and adjacent upland on the left side of the river when looking downstream.

Craig Branch and Garden Ground Trails

NPS has completed planning and NEPA compliance for development of stacked loop trail systems at Craig Branch (11 miles) and Garden Ground (33 miles) (NPS 2011). In the same planning process NPS analyzed the impacts of bicycle use on park trails in order to support promulgation of a special rule in the Code of Federal Regulations that will allow bicycle use on those trails.

During the summer of 2011 volunteers from the Boy Scouts of America, working under the supervision of NPS trail crews, built the Craig Branch Trails (now called the Arrowhead Trail). Funding is not yet available for construction of the Garden Ground Trails.

Future Trail Development

Future development of the trail system at New River Gorge NR will occur in accordance with a new trail development strategy that the NPS staff is currently developing. This strategy will reflect guidance from the recently completed New River Gorge NR General Management Plan (GMP) (NPS 2009a), expressed as a set of guiding principles that summarize the approach to locating and designing the trail system, as follows:

- provide trails offering visitors opportunities to have a variety of recreation experiences and to explore the park's cultural resources
- design new trails for joint use by hikers and bikers, depending on environmental and safety conditions
- convert some significant historic railroad routes and lumbering roads located outside of backcountry zones to trails and rehabilitate them to their historic width, grade and alignment
- convert some ephemeral railroad routes and lumbering roads in backcountry zones to single-track trails
- provide trailheads with parking for all new trails
- continue to work with the CSX Corporation to acquire additional legal crossings of the CSX rights-of-way in the park wherever possible
- work collaboratively with gateway community partners, state agencies, railroad companies, and private landowners to develop trail connections from the park to nearby communities and other visitor attractions

The GMP provides examples of trail improvements that will be considered by NPS, subject to future NEPA compliance if and when funding becomes available.

Through Park Connector

Of particular importance to the trail connections concept plan is the proposed continuous through park connector at New River Gorge NR, a major feature identified in the park's new GMP. The trail would initially enable hikers to travel end to end of the park, generally at or near the river – on a new through park connector. A few segments would be scenic roads, making it possible for visitors unable to hike or bike to explore some of the remote areas of the park. The following segments (from upstream to downstream) would generally compose the Through Park Connector:

- New River Parkway (existing River Road) – from Brooklyn (near Hinton) to the new New River Parkway Bridge
- new trail from the new New River Parkway bridge to the Glade Creek Campground
- existing Glade Creek Road from the Glade Creek Campground to WV SR 41 and WV SR 41/8 – from Glade Creek Road to Terry
- existing WV SR 41 and McKendree Road from Glade Creek Road to Southside Junction
- existing trails and administrative roads from Southside Junction to the Bridge Trailhead (at Fayette Station Road)
- existing Fayette Station Road from the Bridge Trailhead to a new trailhead at Teays Landing
- new trail from a new trailhead at Teays Landing to Hawks Nest State Park

Over time, and as property and rights-of-way are acquired, NPS would seek to develop trails on both river right and river left, from the new New River Parkway Bridge to Hawks Nest. These trails would connect a loop trail that would make possible several days of hiking in the park. The loop trail would ultimately utilize existing bench roads, rim-top trails, and river level roads, and provide a variety of hiking experiences. Camping along the route would be facilitated so that people could enjoy multi-day hikes in the park.

GAULEY RIVER NATIONAL RECREATION AREA – PROPOSED TRAILS

NPS completed the GMP for the Gauley River National Recreation Area in 1996 (NPS 1996). Guiding principles for future trail development include:

- provide one continuous trail through park trail from the Tailwaters Plateau to Upper Swiss
- provide a loop trail along the Meadow River from the US 19 bridge area to the confluence with the Gauley River
- provide trail connections where possible between river accesses and satellite parking facilities
- make maximum use of abandoned railroad rights-of-way, old logging and mining roads, and historic travel routes in order to minimize the cost of construction and to reduce environmental impacts
- design trails for use by hikers, bikers, and horseback riders
- enable trails to be used for access by emergency vehicles
- promulgate special regulations may allow bicycle use in some areas, as appropriate
- locate trails where possible to provide access to river overlooks, fishing sites, suitable backcountry camping sites, interpretive opportunities, rock climbing resources, developed river lunch stops, and river access points

Applying these principles, the future trail system would include four general trail types: a through park trail, river connector trails, upland trails, and gravel maintained/state road trails. Trails would be located and developed to take maximum advantage of existing trails. Existing trails would be brought up to NPS standards based upon the anticipated type of trail use by hikers, bikers, and/or emergency access and maintenance vehicles. Specific requirements for construction would be determined during final design.

Trailhead parking would be located at key locations along the trail system for hikers, bikers, naturalists, climbers and others. Historic visitor use data are not available to demonstrate demand for parking at these locations. Initially ten parking spaces would likely be developed at each site. If future visitation demonstrates that ten spaces are inadequate to meet demand, then NPS would consider adding spaces based upon availability of suitable space.

NATIONAL COAL HERITAGE AREA – PROPOSED TRAILS

The National Coal Heritage Area (NCHA) is one of 49 national heritage areas recognized by Congress for their capacity to tell nationally important stories about America. Congress established the heritage area recognizing southern West Virginia as a unique cultural region where coal mining has played a

significant role in our nation’s history. In 2002 the West Virginia Legislature created the National Coal Heritage Area Authority (NCHAA) as an economic development entity to manage the NCHA and to help build the tourism industry in southern West Virginia.

One of the goals for the NCHA is to identify opportunities for community and regional linkages via hiking, biking, equestrian, and all-terrain vehicle (ATV) trails, as well as recreation areas and scenic byways. In 2009 an in-depth study identified both existing and potential trails throughout southern West Virginia which included an in-depth user survey, land manager’s survey, and six workshops (NCHA 2009). Recommended actions focus on enhancing capacity of potential partners in the region to plan, develop, and manage trails throughout the heritage area. Actions fall into four categories: civic engagement, planning and development, promoting and using the trails, and trail types. Implementation is intended to occur by the entire community, including individuals, non-profit organizations, civic groups, and local, state, and federal government agencies.

Within the study area the NCHA trail plan indicates several proposed trails (figure 1.1 and table 1.1). The trails are in different stages of planning and development by various partners.

Table 1.1: Proposed Trails within the Study Area (as proposed in the National Coal Heritage Area Trail Plan)

Rail-Trails
Piney Creek Rail-Trail
Beckley Rail-Trail (partially complete)
White Oak Rail-Trail (partially complete)
Mt. Hope to Garden Ground Rail-Trail
Oak Hill Rail-Trail (partially complete)
Victor’s to Hawks Nest Rail-Trail
Hawks Nest Rail-Trail Phase II (partially complete)
Meadow River Rail-Trail (Meadow to Gauley River Rail-Trail)
Meadow River Rail-Trail (Middle Meadow to Babcock Rail-Trail)
Fayette County Bike Routes
Rainelle to New River Rail-Trail



Visitors descend an administrative road to access the rail-trail along the Gauley River.

Non-Motorized Trails

Great Eastern Trail

Mary-Draper Ingles Trail (the trail goes to Dungen and then continues south from Hinton)

Glade Creek Trail

Piney Creek Ridge Top Trail

Ridge Trail to Koontz Bend (in GARI)

National Rivers Trail (partly in GARI)

Babcock Link Trail (in NERI)

Roadside Trails

Bluestone to Camp Creek Bikeway

Beckley Area Bike and Pedestrian Routes (partly in NERI)

Maxwell Hill Walking Tour

Thurmond to Minden Trail

Wolf Creek Trail

Midland Trail Bikeway

Unknown Soldier Trail (partly in GARI)

Route 19 Bikeway

WEST VIRGINIA STATEWIDE TRAIL PLAN – PROPOSED TRAILS

Recommendations of the 1993 – 1997 West Virginia Statewide Comprehensive Outdoor Recreation Plan (SCORP) called for the state to develop a concept plan for an integrated system of rivers, trails, and greenways. In 1995, members of the state trail community formed the West Virginia Trail Plan Committee to create and implement a statewide trail plan for West Virginia. Completed in 2002, the plan's recommendations remain current (West Virginia 2002). Trails proposed within the study area are included within the trail network proposed in the NCHA trail plan (NCHA 2009).



Remnants of historic coal mining operations found along New River Gorge NR's network of hike/bike trails presents users with opportunities for discovery.

1.4 VISITOR SURVEYS

1.4.1 National Coal Heritage Area Survey Findings

In 2008 the National Coal Heritage Area Authority conducted a survey of trail users, elected officials, public land managers, and large landowners to identify trail needs. The survey indicated that the NCHA has an active population that supports and would utilize new trail networks. More than half of the respondents indicated that they participate in outdoor activities over 30 minutes a day. Approximately 64 percent of respondents lived within 10 miles of a trail, 19 percent within 10 to 20 miles of a trail, and 5 percent within 20 to 30 miles of a trail.

Over 90 percent of respondents stated that they would walk, hike, bike, or run if trails were available in their community or region. If new trails were provided, respondents indicated they would participate in the following trail activities:

walking/hiking for fun and exercise – 89%
bicycling for fun and exercise – 71%
paddling a canoe or kayak – 46%
walking or bicycling for transportation – 43%
birdwatching or nature study – 41%
events such as walks/runs/triathlons – 39%
fishing – 38%
jogging or running – 25%

1.4.2 New River Gorge National River Visitor Study

On the park level, NPS completed a visitor survey for New River Gorge NR in 2004 (Manni et al 2005). Over half of the visitors (59%) surveyed indicated that hiking/biking trails were extremely important to them. Another 28 percent said that they were very important. Approximately 35 percent of visitors indicated that they used hiking/biking trails in the park. The most often used trails were those in the Grandview and Canyon Rim areas. Almost half of visitors (49%) using trails found trail conditions to be very good; another 35 percent found trail conditions to be good.

Visitors were also asked, "If you were a manager planning for the future of New River Gorge NR, what would you propose?" A small number of people (10 of 371 comments) indicated that the NPS should provide additional trails and detailed maps of existing trails.

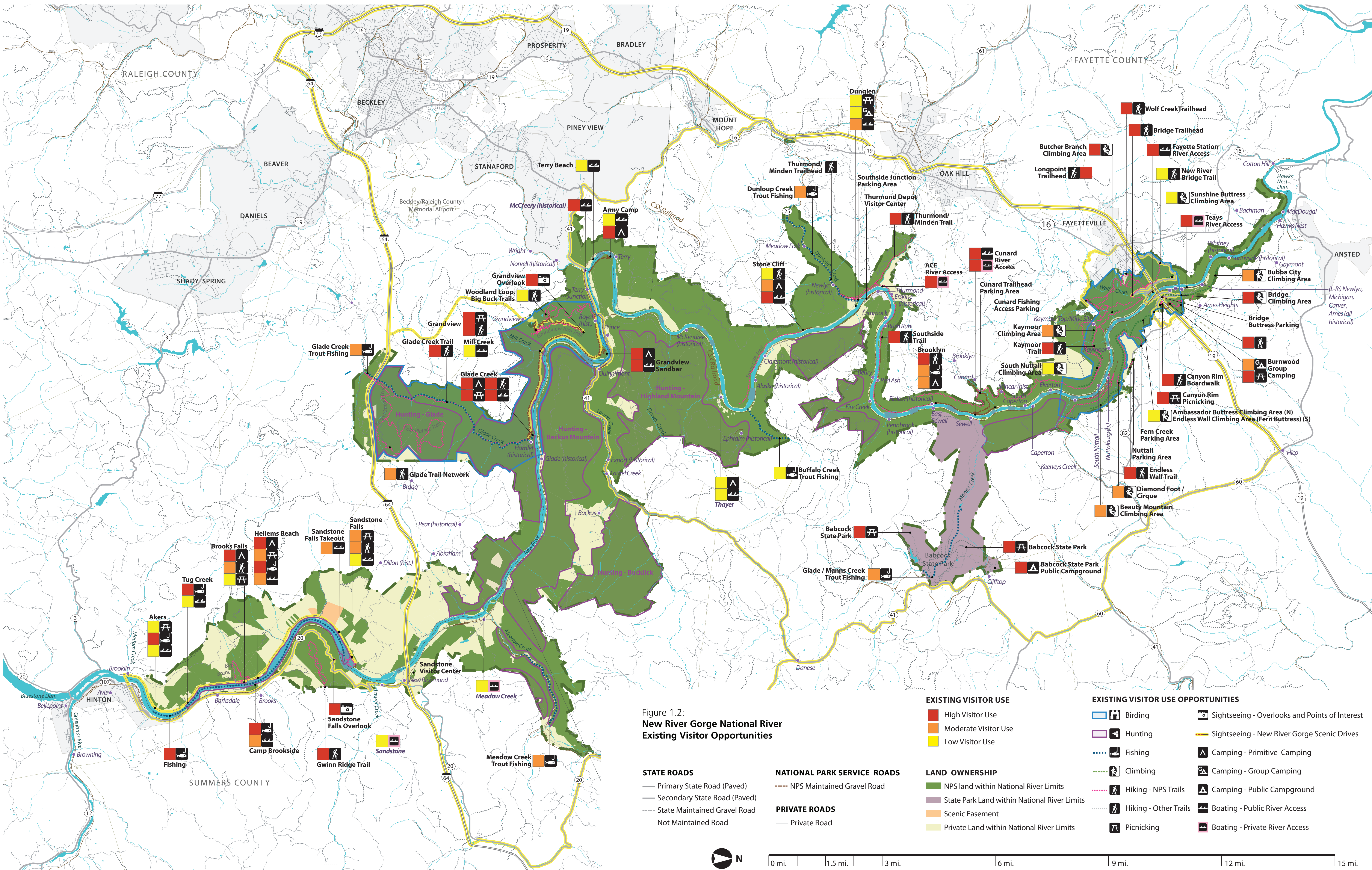


Figure 1.2:
New River Gorge National River
Existing Visitor Opportunities

STATE ROADS

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

NATIONAL PARK SERVICE ROADS

- NPS Maintained Gravel Road

PRIVATE ROADS

- Private Road

EXISTING VISITOR USE

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

LAND OWNERSHIP

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

EXISTING VISITOR USE OPPORTUNITIES

- Birding
- Hunting
- Fishing
- Climbing
- Hiking - NPS Trails
- Hiking - Other Trails
- Picnicking
- Sightseeing - Overlooks and Points of Interest
- Sightseeing - New River Gorge Scenic Drives
- Camping - Primitive Camping
- Camping - Group Camping
- Camping - Public Campground
- Boating - Public River Access
- Boating - Private River Access

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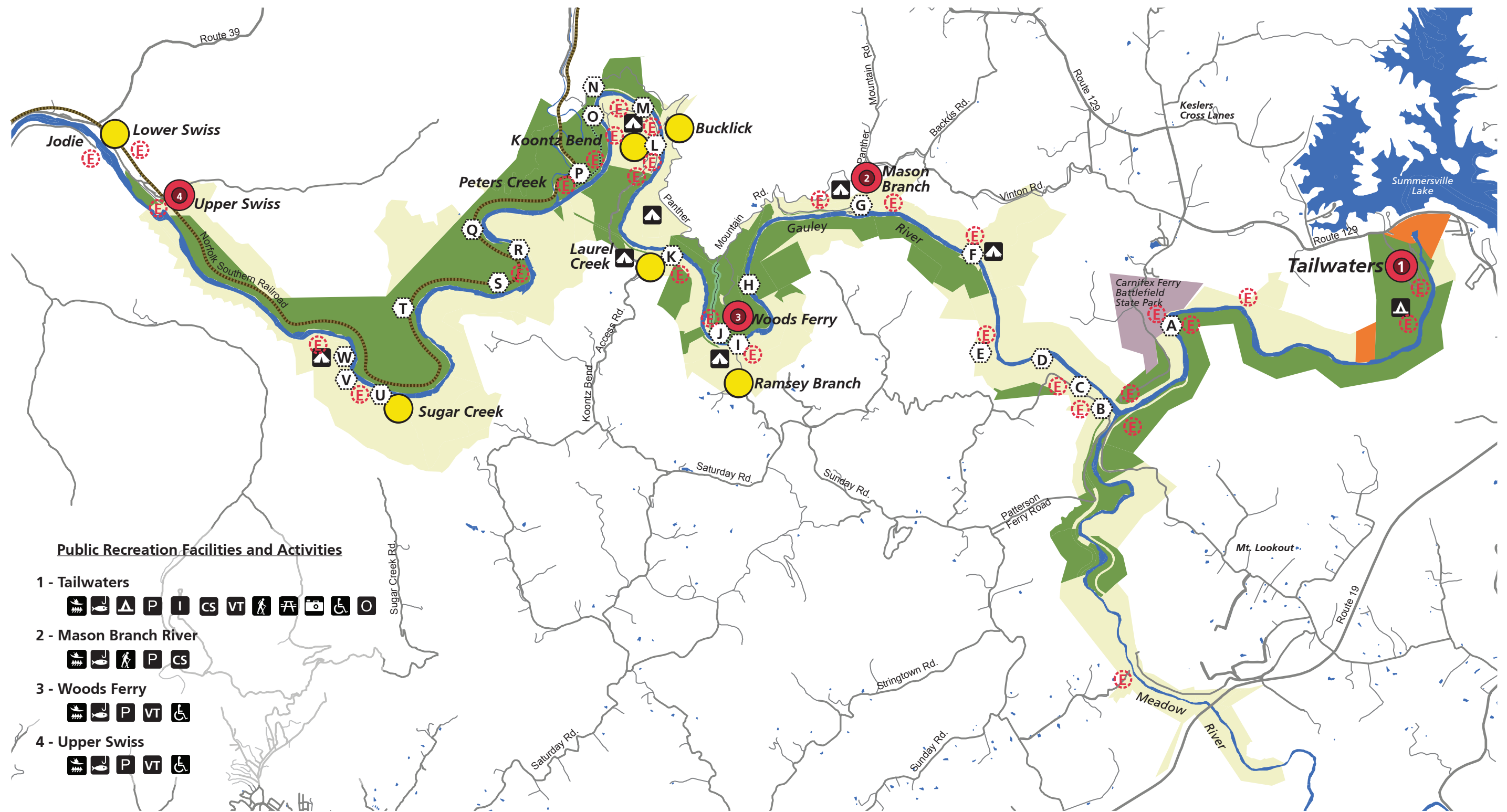


Figure 1.3:
Gauley River National Recreation Area
Existing Visitor Opportunities

0 1 Mile 2 Mile 5 Mile
National Park Service
US Department of the Interior



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connecting the parks with
their gateway communities -
concept plan

2

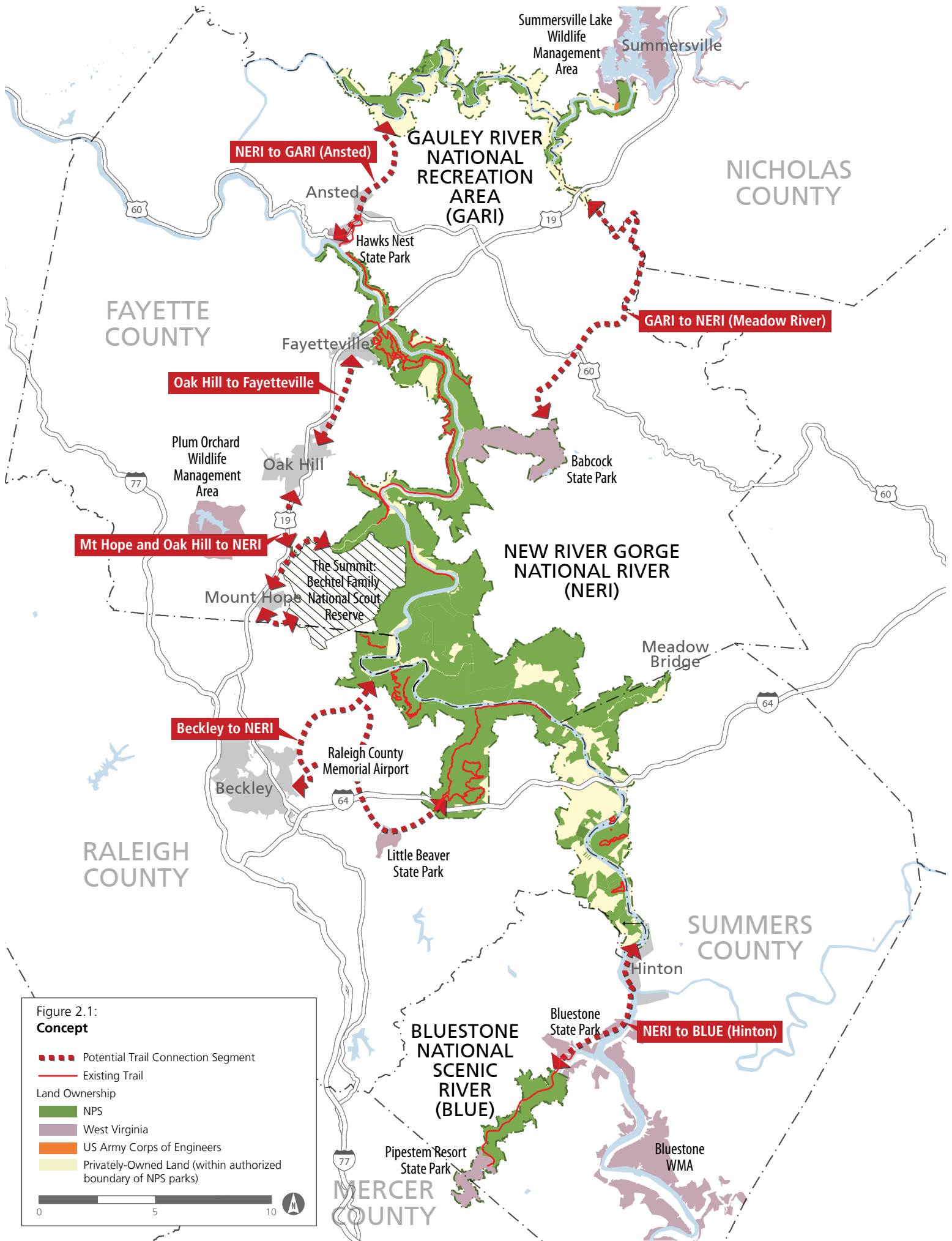


Figure 2.1:
Concept

--- Potential Trail Connection Segment

— Existing Trail

Land Ownership

■ NPS

■ West Virginia

■ US Army Corps of Engineers

■ Privately-Owned Land (within authorized boundary of NPS parks)

0 5 10



connecting the parks with their gateway communities - concept plan

2

2.1 THE VISION

In the future the NPS and its partners will continue to explore options for planning, developing, and managing a network of trails that will connect public lands and gateway communities in the vicinity of New River Gorge National River. This effort will build on the existing network of trails and previous trail planning efforts completed by the NPS (NPS 2009a), the National Coal Heritage Area (NCHA 2009), and the state of West Virginia (WV 2002).

The vision for the New River Gorge area is:

Throughout the region and around the country, the New River Gorge area is viewed as one of America's premier hiking and biking destinations. In and around New River Gorge National River a network of connected trails offers hiking and biking experiences with dramatic opportunities for adventure, discovery, and solitude on day-long trips or multi-day trips. Residents of nearby gateway communities enjoy hiking and biking trails within their community that connect to longer trails, taking them to nearby national parks and public lands.

At New River Gorge National River a north-south through-park connector trail composed of improved scenic roads and trails enables visitor to travel the length of the park, visiting historic sites and accessing the backcountry via other shorter distance trails. At the Gauley River National Recreation Area visitors travel the length of the park from the Tailwaters to Upper Swiss and along the Meadow River to Sugar Creek. At the Bluestone National Scenic River visitors explore the scenic river corridor on the Bluestone Turnpike Trail. Other linked public lands include Babcock, Hawks Nest,

Little Beaver, Pipestem Resort, and Bluestone State Parks, as well as Plum Orchard, Summersville Lake, and Bluestone Wildlife Management Areas.

The National Park Service and its many partners in the New River Gorge area accomplished this vision through collaboration motivated by the potential benefits of enhancing access to the area's outdoor resources. Local governments, outdoor enthusiasts, and other partners have provided new recreation experiences and activities making the area's dramatic scenic, natural, and historic resources accessible to residents and visitors. This has increased visitation to the area and improved public health of local residents, creating measureable positive economic impacts and generally enhancing the quality of life in the New River Gorge area.

2.2 THE CONNECTIONS

Trail connections in six areas would compose the trail network in the New River Gorge area, including (figure 2.1):

- New River Gorge NR to Gauley River NRA (Ansted)
- Gauley River NRA to New River Gorge NR (Meadow River)
- New River Gorge NR to Bluestone NSR (Hinton)
- Beckley to New River Gorge NR
- Mount Hope and Oak Hill to New River Gorge NR (Dunloup Creek Greenway)
- Oak Hill to Fayetteville

2.2.1 The Connections – Illustrative Concepts and Existing Conditions

The potential trail connections reflect concepts identified by the NPS planning team in collaboration with potential partners in each corridor. Separate sections of this concept plan (sections 3 through 8 below) provide an illustrative concept and description for each trail connection, including: an overview of existing conditions in the corridor; a summary of past and ongoing trail planning initiatives; potential connection alignment(s); potential trail partners; and preliminary order-of-magnitude capital cost estimates.

Tables summarizing existing and potential trail conditions provide the following information:

TRAIL STATUS

- existing trails
- approved and funded trails
- approved trails
- trails under study to complete the Through Park Connector on river left from Piney Creek North
- other trails recommended in the GMP
- other trails recommended/under study by partners (identified in the National Coal Heritage Area Trail Plan (2009))

PLANNING STATUS

- potential alignment not yet identified
- potential alignment identified based on aeriels and tax maps, field verification required
- potential alignment identified, field verified
- alignment selected, planning for implementation
- constructed

EXISTING TRAIL CLASSIFICATION

- no existing trail
- single-track trail
- sidewalk
- railroad grade
- mine bench
- logging/skid road
- administrative/access road
- county road
- state road

LAND OWNERSHIP

- unknown - requires further investigation
- private
- ROW
- federal

USE

- none
- hiking
- biking
- multi-purpose
- ATV
- 4WD
- sidewalk
- street

SURFACE

- natural
- paved

FEATURES REQUIRING SPECIAL NEEDS

- will be segment specific and vary

FUTURE TRAIL CLASSIFICATION

- on-street bike trail
 - shared roadway
 - shoulder bikeway
 - bike lane
- hike/bike trail
 - multi-purpose
 - rail-trail
 - single track trail

2.2.2 Capital Cost Estimates

Tables 3.3, 4.3, 5.3, 6.3, 7.3, and 8.3 below provide estimated order-of-magnitude costs (2012\$) for development of each trail connection. The estimates are conceptual (Class C) cost estimates based on square foot /linear foot or typical unit costs of similar construction. The estimates have been developed using NPS and industry standards. Table 2.1 summarizes the unit cost assumptions used to assemble the estimates.

Once design development for each trail connection has been completed, a budgetary (Class B) estimate should be prepared. Once design development has occurred – at the end of the design process – a detailed construction (Class A) estimate should be prepared based on quantity take-offs from completed construction drawings and specifications.

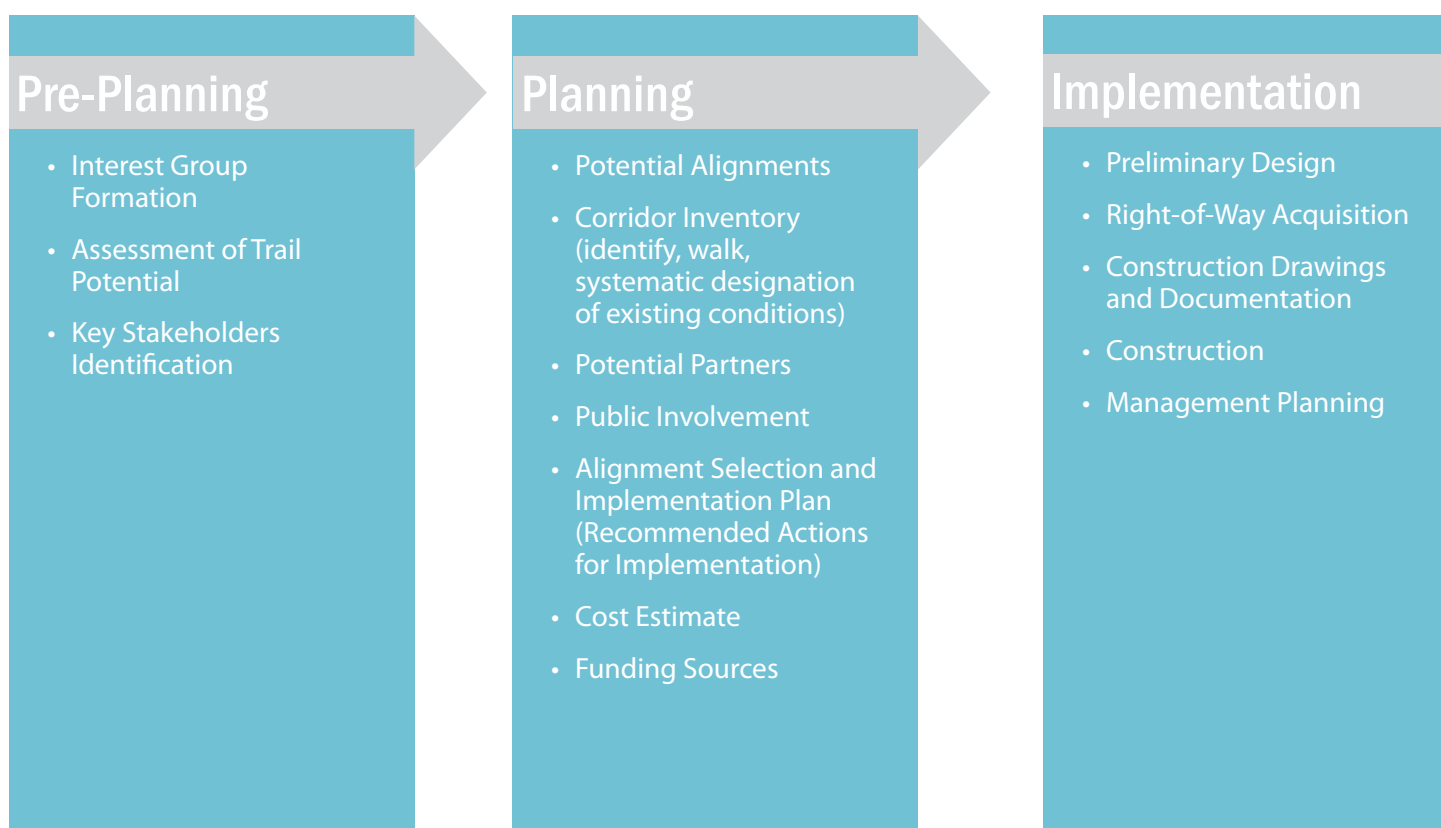
Table 2.1: Trail Development Capital Cost Estimate – Unit Cost Assumptions (2012\$)

Description	Unit	Cost/Unit		Source of Cost Data
		Low	High	
8' Multi-Purpose Trail	mile	\$80,000	\$100,000	Rivers, Trails, and Conservation Assistance Program, 2012
10' Rail-Trail	mile	\$80,000	\$100,000	Rivers, Trails, and Conservation Assistance Program, 2012
Prefabricated Bridge	linear foot	\$4,400	\$5,200	2012 construction bids for footbridges on similar trails
Shared Roadway	-	-	-	assumes no improvements/cost
CSX Pedestrian Crossing	each	\$250,000		CSX, 2012
Gravel Parking (10 spaces)	each	\$14,500		RSMeans Site Work and Landscape Cost Data, 2012
Vault Toilet	each	\$15,000		RSMeans Site Work and Landscape Cost Data, 2012
Bench	each	\$350		RSMeans Site Work and Landscape Cost Data, 2012
Picnic Tables	each	\$350		RSMeans Site Work and Landscape Cost Data, 2012
Kiosk	each	\$6,000		RSMeans Site Work and Landscape Cost Data, 2012

2.3 TRAIL DEVELOPMENT PROCESS

A “bottom up” grass roots process is envisioned for planning and development of the six trails that would ultimately link the gateway communities with the three national park units. In this model local interests will identify the need for each trail, and plan and design it with technical assistance from regional, state, and federal planners and others. The process will be a community process in which local citizens, user groups, governments, and public and private landowners collaborate to create a trail network that will benefit their own communities and their neighboring communities. Figure 2.2 illustrates the general sequence of steps in the process.

Figure 2.2: Trail Planning, Development, and Management Process



2.3 TRAIL PARTNERS

2.4.1 Potential Trail Connection Partners

Communities, government agencies, and organizations who have expressed interest in planning, development, and management of the six connections are shown in table 2.2. Accomplishments to date by each partner are summarized below in chapters 3 through 8 for each connection.

2.4.2 Potential Trail Networkwide Partners

Several organizations can offer services to assist with planning, development, and management of trails throughout the trail network. Those who have expressed an interest in helping the trail partners include:

- National Park Service
- National Coal Heritage Area
- West Virginia University College of Law – Land Use and Sustainable Development Law Clinic
- various conservation organizations

National Park Service. NPS can offer technical assistance to trail partners with planning, development, and management of the connecting trails. Technical assistance could include:

- partnership building
- resource mapping
- trail reconnaissance and alignment selection
- trail design
- trail building and management training
- title research
- grantwriting
- volunteer coordination (for trail building and management)
- working with landowners

National Coal Heritage Area. The National Coal Heritage Area (NHCA) completed its trail plan in 2009 (NCHA 2009), providing the vision for a network of greenways and blueways throughout the heritage area. NCHA's role in plan implementation is to assist partners with recreational trail grant applications to plan, develop, and manage the component trails within the network. NCHA is also in the position to host a volunteer from Volunteers in Service to America (VISTA) if local partners can provide required matching funds.

West Virginia University College of Law. The Land Use and Sustainable Development Law Clinic of the West Virginia University College of Law has expressed interest in assisting trail partners with legal work needed to plan and develop trail connections. The clinic is potentially able to offer assistance with legal research, working with landowners (regarding the type of agreement appropriate for each landowner and addressing liability concerns), and drafting legal agreements. Pro bono assistance is possible depending on the trail partner for whom the work would be completed.

Conservation Organizations. There is a potential role for non-profit conservation organizations to assist with working with landowners in all of the connection corridors. A conservation organization could assist with negotiating acquisition of trail rights-of-way in fee or through easements. Numerous organizations have assisted the NPS with land acquisition at the West Virginia parks and would be able to assist with trail development where a project is consistent with its mission. Organizations include The Nature Conservancy, The Conservation Fund, The Trust for Public Land, and others. The West Virginia Land Conservancy could also potentially assist in the future.

2.4.3 Role of a Trail Partner Network Alliance

Trail partners have expressed interest in periodically meeting to share experiences, assess issues, and identify opportunities for collaboration. While some challenges may be unique to a particular connector, others are common to all, such as negotiating rights-of-ways, railroad crossings, trail and trailhead improvements, signage, and trail management. Many of these common challenges might be more effectively and efficiently addressed through a larger coordinated group effort. The NPS has offered to initially convene periodic meetings to bring the trail partners together for purposes of exploring options to address shared issues and needs.

Over time as the trail partners within each connection corridor become more organized it may evolve that the partners desire to form a formal trail network alliance to promote planning, development, and management of the overall connector trail network. If and when this occurs, a lead partner or organization would assume a coordinating role. This lead partner could be a federal, state or local government agency, or one of the many trail partners.

Table 2.2: Trail Partners

Connection	Potential Partners
New River Gorge NR to Gauley River NRA (Ansted)	Town of Ansted Ansted Improvement Motivators Boy Scouts of America Hawks Nest State Park Fayette County
Gauley River NRA to New River Gorge NR (Meadow River)	Fayette County Fayette County Improvement Board Babcock State Park Boy Scouts of America
New River Gorge NR to Bluestone NSR (Hinton)	City of Hinton U.S. Army Corps of Engineers Bluestone State Park Great Eastern Trail Association
Beckley to New River Gorge NR	Raleigh County Raleigh County Memorial Airport Authority Raleigh County Cycle Club Piney Creek Watershed Association Boy Scouts of America City of Beckley Little Beaver State Park
Mount Hope and Oak Hill to New River Gorge NR (Dunloup Creek Greenway)	U.S.D.A. Natural Resources and Conservation Service Fayette County City of Mount Hope New River Gorge National River (NPS) City of Oak Hill White Oak Rail-Trail Commission
Oak Hill to Fayetteville	Local Bikers and Bike Shop City of Fayetteville Fayette County Green Advisory Team Fayette County

new river gorge nr to gauley river nra (ansted) 3

Figure 3.1:
**Gauley River NRA to
 New River Gorge NR (Ansted)**
 Trail Connection Corridor Setting

Potential Trail Connection Segments

- Approved and Funded Trails
- Other Trails Recommended in the GMP

Existing Trails and Scenic Byways

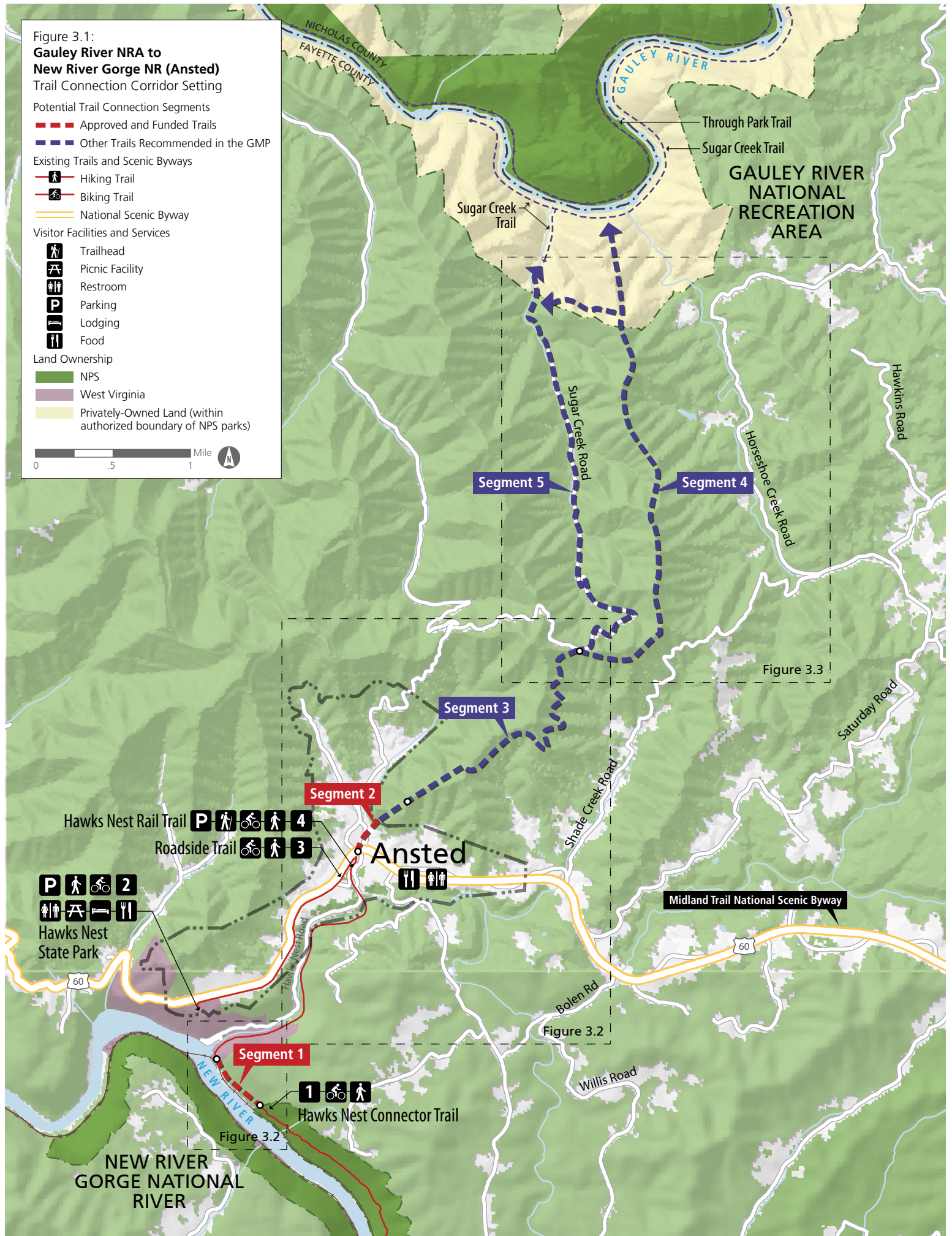
- Hiking Trail
- Biking Trail
- National Scenic Byway

Visitor Facilities and Services

- Trailhead
- Picnic Facility
- Restroom
- Parking
- Lodging
- Food

Land Ownership

- NPS
- West Virginia
- Privately-Owned Land (within authorized boundary of NPS parks)



new river gorge nr to gauley river nra (ansted)3



The potential connector trail from Ansted to Gauley River NRA follows existing ridgeline ATV trails offering vistas across the Gauley Mountain range.

3.1 CONNECTION CORRIDOR

The New River Gorge NR to Gauley River NRA connector would provide a trail linking the two parks. It would begin at the downstream end of New River Gorge NR on river right. From there it would connect to Hawks Nest State Park and then follow the Mill Creek corridor to Ansted via the Hawks Nest Rail-Trail. From Ansted the connection would continue north over the Gauley Mountains to the Gauley River NRA, entering the park above the Sugar Creek river access. North of Ansted the corridor is privately owned forested land with very little development.

3.1.1 Existing Trails

Trails in the connector corridor present a range of experiences. Conditions vary from the formalized Hawks Nest Rail-Trail to the informal network of ATV trails in the Gauley Mountains. Table 3.1 summarizes official trails. The column title “Map #” corresponds to trails illustrated on figure 3.1.

Table 3.1: Existing Trail Network

Map #	Trail	Length (mi)	Trail Typology	Use	
				Hike	Bike
1	Hawks Nest Con- nector Trail	2	Multi-Purpose	●	●
2	Hawks Nest SP Trail Net- work		Multi-Purpose	●	●
3	Roadside Trail	1.7	Multi-Purpose	●	●
4	Hawks Nest Rail- Trail	2	Multi-Purpose	●	●

3.1.2 Existing Attractions

Existing trail access and trail-related recreational amenities in the corridor include:

- **Hawks Nest State Park.** The 838-acre state park includes a lodge, restaurant, conference facilities, nature facility, golf course, aerial tramway, and day-use facilities.
- **Ansted Culture and Heritage Museum.** The museum features two collections. The first collection focuses on pre-pioneer days to the 1940s modern industrial era. The second collection features a collection of Civil War weapons and other items.

3.1.3 Visitor Services and Amenities

Services and amenities in the connection corridor are available at:

- **Ansted.** Ansted includes several shops, restaurants and opportunities for interpretation. In Ansted, visitors can pick up headsets for a self-guided geology tour along the Hawks Nest Rail-Trail.
- **Hawks Nest State Park.** The state park includes overnight accommodations, a restaurant, day-use facilities, and a tram that takes visitors from the gorge rim down to the New River.

3.2 ONGOING TRAIL PLANNING

Current planning for extensions to the existing Hawks Nest Rail-Trail include:

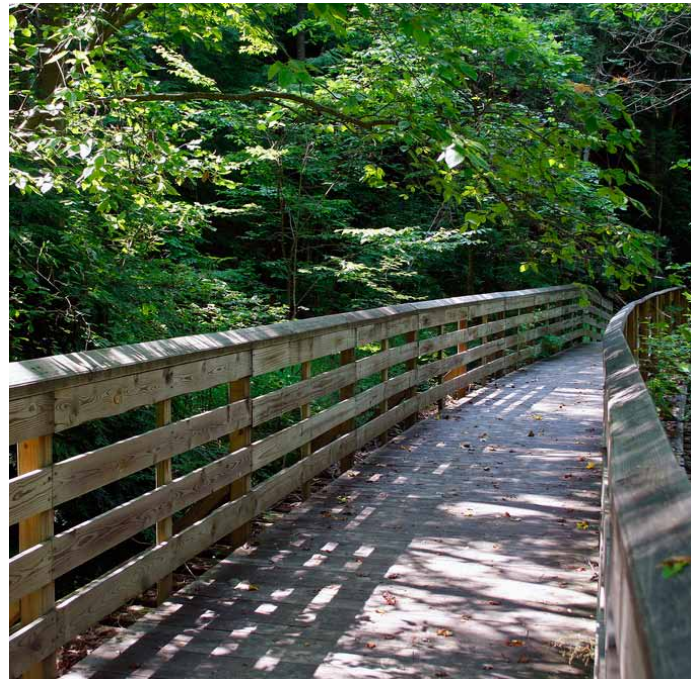
- **Hawks Nest Rail-Trail Southern Extension.** Plans are currently underway to work with the Boy Scouts of America (BSA) to bridge the gap between the Hawks Nest Connector Trail in New River Gorge NR and Hawks Nest Rail-Trail in Hawks Nest State Park (labeled segment 1 in figure 3.1).
- **Hawks Nest Rail-Trail Northern Extension.** In the summer of 2013, the town of Ansted plans to extend the rail-trail north with assistance from the BSA. The extension will include building two bridges with a pedestrian walkway through the tunnel under US Route 60 to the original Cemetery Street (a portion of segment 2 in figure 3.1). Discussions with landowners are underway to extend the trail beyond Cemetery Street to the ridgeline.

Trail planning for the Gauley River NRA is considering two proposed trails in the vicinity (figure 3.1):

- The Sugar Creek Trail is under consideration as a potential 5.5-mile river corridor trail that would connect the Sugar Creek river access to the Gauley River Through Park Trail at the Koontz Bend tunnel.
- The Through Park Trail is planned to link the three ends of the park: Tailwaters, Swiss, and the Meadow River (at US 19). The trail would include existing trail or road, new trail construction, and future abandoned rail rights-of-ways.

Trail plans developed by the NCHA (NCHA 2009) and West Virginia Trail Plan Committee (2002) identify one additional proposed trail in the vicinity (figure 3.1):

- **Midland Trail Bikeway.** Identified in both the NCHA and West Virginia Trail Plans, the proposed on-street bikeway would parallel the Midland National Scenic Byway 130 miles from Lewisburg to White Sulphur Springs.



Maintained by the town of Ansted, the 2-mile Hawks Nest Rail-Trail provides a hike/bike connection along Mill Creek from Ansted to Hawks Nest State Park.

(image: "MG_9600." Photograph. mailmae59. Available from Flickr: <http://www.flickr.com/photos/29523919@N05/4660567264/>)

3.3 POTENTIAL TRAIL CONNECTION ALIGNMENT

Figures 3.2 and 3.3 illustrate the potential trail connection identified by partners through the planning process. Table 3.2 corresponds to figures 3.2 and 3.3 and summarizes distances, planning status, existing trail classifications, land ownership, use, surface, features requiring special consideration, and future trail classifications.

The connection is largely envisioned as a multi-purpose trail with segments following existing roadways and sidewalks. The network would primarily serve two user groups: inter-trail hikers/bikers and community members for exercise.

Segment 1 would extend from New River Gorge NR to Hawks Nest State Park, bridging the gap between the Hawks Nest Connector Trail and Hawks Nest Rail-Trail. As noted above, plans are underway for the BSA to design and construct the segment.

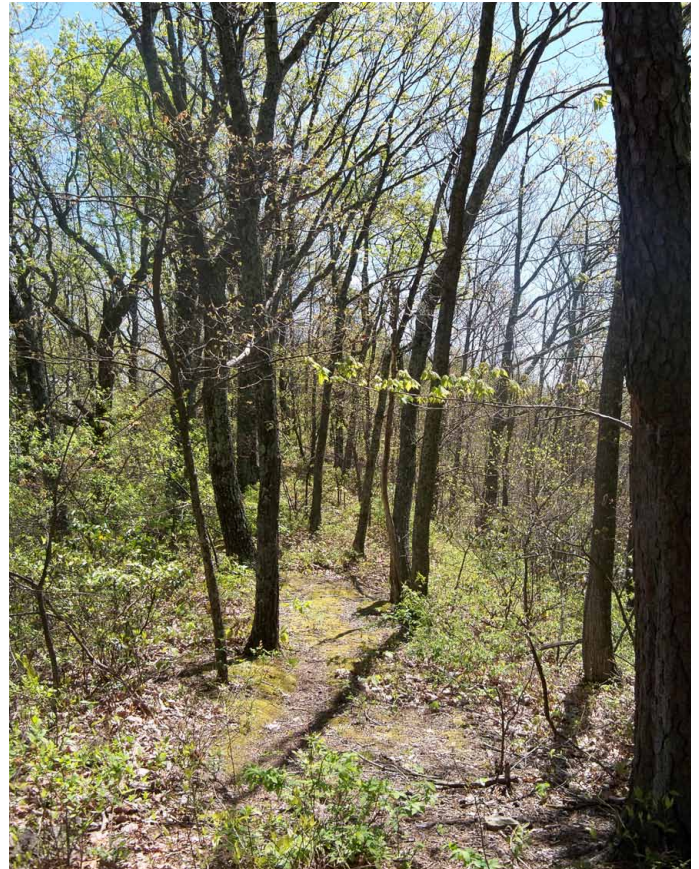
Extending from the Hawks Nest Rail-Trail, segment 2 would be a combination of on- and off-street connections. Establishing safe pedestrian crossings are a challenge to implementing the segment. Segment 2 would require the construction of a pedestrian walkway through the Route 60 tunnel and two bridges. With BSA assistance, these improvements are scheduled for completion in the summer of 2013. From the original Cemetery Street, the trail would continue off-street to the ridgeline. Discussions are underway with surrounding landowners to identify an alignment from Cemetery Street to the ridgeline.

Segment 3 would follow an existing ATV trail. Continuing north, both on- and off-street options exist. Segment 4a, an off-street option, would follow the existing ridgeline ATV trail. From the ridgeline, options for connecting to the park include tracing an existing bench road (4b) or linking Sugar Creek Road (4c). Steep topography along portions of segments 3 and 4 would require significant earthwork to accommodate bicycle use.

Segment 5 illustrates an on-street option for continuing north from segment 3 to the proposed Sugar Creek Trail. Largely a paved one-lane road, segment 5a would follow Sugar Creek Road from the ridgeline to the confluence of Sugar Creek and the Gauley River. Establishing a shared roadway would require coordination with the local WV Department of Transportation to obtain encroachment permits and to work with traffic engineers to determine signage, striping, and other needed improvements.

Less than a mile south of the Gauley River NRA park boundary, Sugar Creek Road becomes a private gravel road (segment 5b). ATV use along segment 5b would require designation as a

public road. Alternatively, segment 5b would remain a private road and be limited to pedestrian and bike use. This option would require signage prohibiting ATV use beyond segment 5a.



The potential connection from Ansted to Gauley River NRA largely follows an existing network of ATV trails along the ridgelines of the Gauley Mountain range.



Located in the town of Ansted, the Hawks Nest trailhead offers users access and orientation to the rail-trail.

Table 3.2: Existing and Potential Trail Conditions

	Segment 1: New River Gorge NR to Hawks Nest Rail-Trail	Segment 2: Hawks Nest Rail-Trail to Ridgeline		Segment 3: Ridgeline to Sugar Creek Road
		2a.	2b.	
Distance	0.4 miles	0.3 miles	0.5 miles	2.0 miles
Trail Status	Approved and funded	Approved and funded	Other trails recommended in the GMP	Other trails recommended in the GMP
Planning Status	Alignment identified and field verified. The segment is planned for construction by the BSA.	Potential alignment identified, field verified.	Potential alignment identified, field verified. The segment is under discussion with landowners.	Potential alignment identified, field verified
Existing Trail Classification	No existing trail	County Road with sidewalk (Federal Road - East Main St)	No existing trail	Ridgeline ATV Trail
Land Ownership	Two land owners (federal and private ownership)	ROW	Several private landowners	Two private landowners
Use	• no current use	• sidewalk	• no current use	• ATV
Surface	Natural	Paved	Natural	Natural
Features Requiring Special Needs		<ul style="list-style-type: none"> • Pedestrian improvements at intersections • On-street improvements • Coordination with WV Department of Transportation to obtain encroachment permits and determine signage, striping, and other improvements 		<ul style="list-style-type: none"> • Active coal mining operations
Future Trail Classification	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	Sidewalk (hike) Shared roadway (bike)	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike • atv

Table 3.2: Existing and Potential Trail Conditions

	4. Sugar Creek Road to Gauley River NRA via Sugar Creek			5. Sugar Creek Road to Gauley River NRA via Horseshoe Creek	
	4a.	4b.	4c.	5a.	5b.
Distance	2.7 miles	0.6 miles	0.7 miles	2.9 miles	0.6 miles
Trail Status	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP
Planning Status	Potential alignment identified, field verified	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required
Existing Trail Classification	Ridgeline ATV Trail	Mine bench	Mine bench	County Road (Sugar Creek Road)	Private Road (Sugar Creek Road)
Land Ownership	Two private landowners	One private landowner	One private landowner	ROW	Private
Use	• ATV	• ATV	• ATV	• vehicle	• ATV • 4WD
Surface	Natural	Natural	Natural	Paved, one lane	Gravel
Features Requiring Special Needs	• Steep topography would require earthwork to accommodate bicycle use	• Steep topography would require earthwork to accommodate bicycle use	• Steep topography would require earthwork to accommodate bicycle use	• Coordination with WV Department of Transportation to obtain encroachment permits and determine signage, striping, and other improvements	• ATV use to the river via Sugar Creek Road would require designation as a public road
Future Trail Classification	8' Multi-purpose trail: • hike • bike • atv	8' Multi-purpose trail: • hike • bike	8' Multi-purpose trail: • hike • bike	Shared roadway	8' Multi-purpose trail: • hike • bike

Figure 3.2:
**Gauley River NRA to
 New River Gorge NR (Ansted)**
 Potential Trail Connection Segments: South

Potential Trail Connection Segments

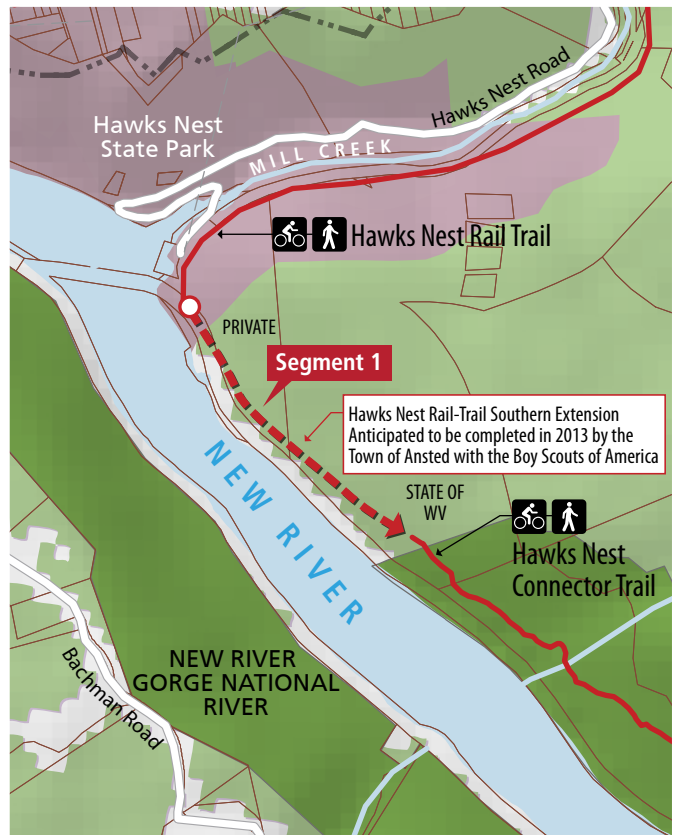
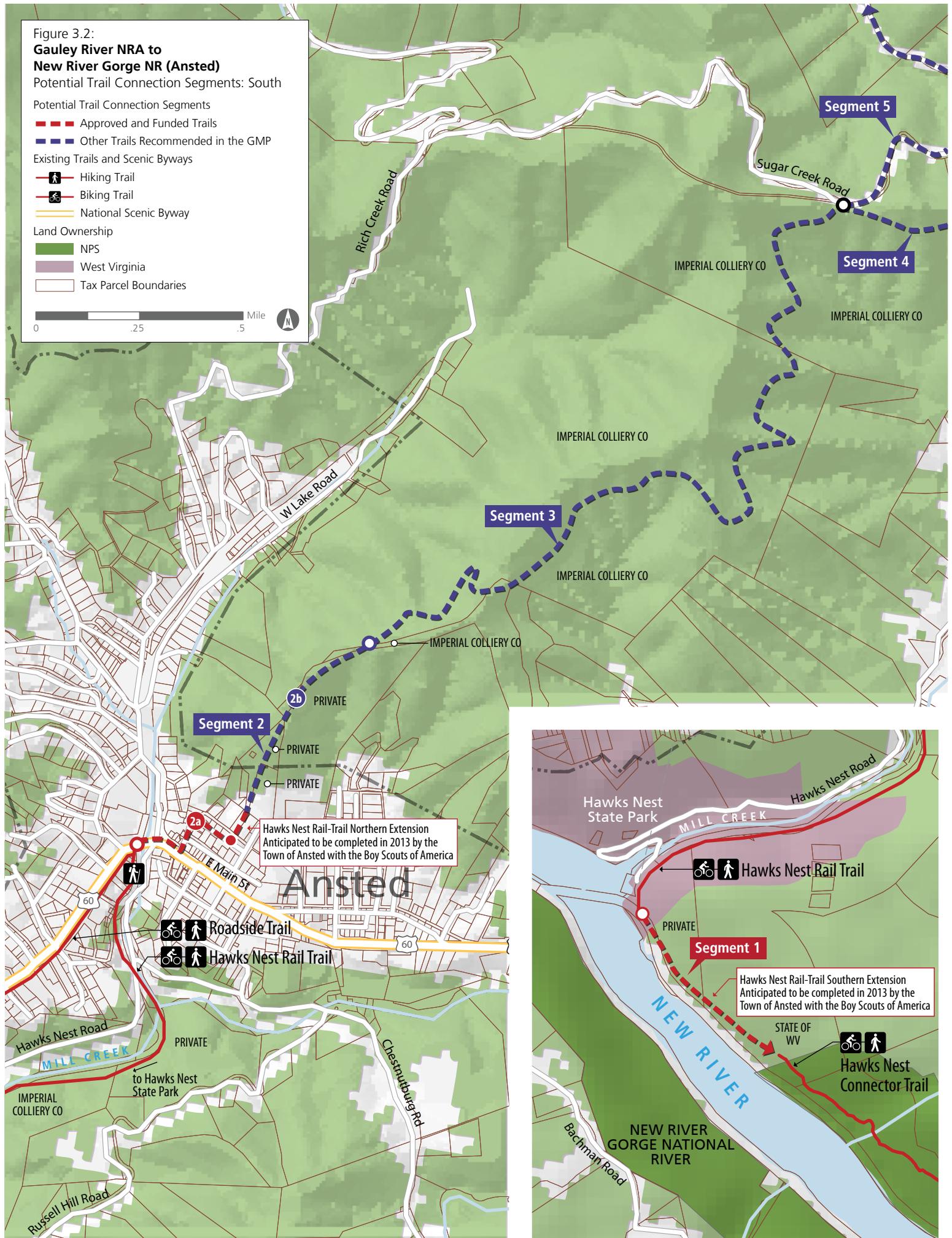
- Approved and Funded Trails
- Other Trails Recommended in the GMP

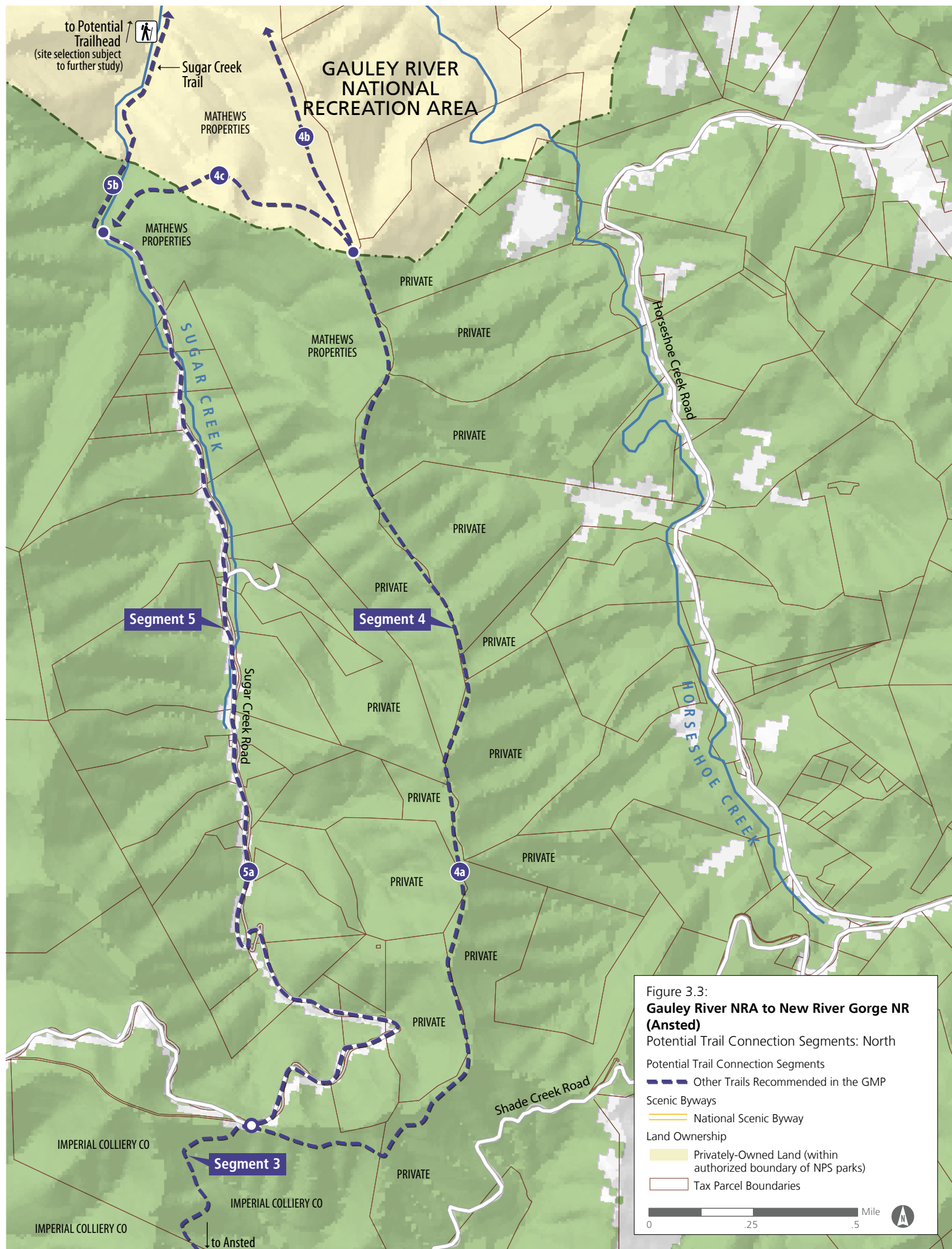
Existing Trails and Scenic Byways

- Hiking Trail
- Biking Trail
- National Scenic Byway

Land Ownership

- NPS
- West Virginia
- Tax Parcel Boundaries





3.4 POTENTIAL PARTNERS

In the Ansted area existing trail development is the result of efforts led by the town of Ansted focused on the Hawks Nest Rail-Trail. Other entities that have assisted with planning, development, and management of the rail-trail include the Ansted Improvement Motivators and Hawks Nest State Park. The Boy Scouts of America and Hawks Nest State Park are currently collaborating with the town and the National Park Service to develop additional trail segments.

Long-term trail development in the corridor would likely be led by the town of Ansted with technical assistance from the National Park Service and volunteer assistance from the Boy Scouts of America. Further consultation is needed to assess the potential involvement of Fayette County in trail planning, development, and management.

TOWN OF ANSTED

A vision plan for the town of Ansted completed in the late 1990s identified a trail connection to Hawks Nest State Park as an important asset to promote tourism in the community. The town has moved forward with developing the trail by obtaining transportation grants for acquisition and construction funds. Today the trail extends from a trailhead on Hawks Nest Road in Ansted along the historic rail grade following Mill Creek down to the Hawks Nest State Park Nature Center near Hawks Nest Lake. The town owns the trail right-of-way. Trail maintenance is performed by town maintenance crews and volunteers.

Planning is ongoing by the town in collaboration with the Boy Scouts of America to extend the trail from the trailhead upstream to the town cemetery and beyond (to the ridgeline above Ansted) and to link the rail-trail to the Hawks Nest Connector Trail at New River Gorge NR.

The town has expressed interest in collaborating with the NPS to explore options for extending the trail as a multi-purpose trail north from the town to the Gauley River National Recreation Area. This is of interest because the trail would be an additional recreation asset that would further attract tourism to the community.

ANSTED IMPROVEMENT MOTIVATORS

A local non-profit – the Ansted Improvement Motivators (AIM) – assists the town with construction and maintenance of the Hawks Nest Rail-Trail. AIM's mission is generally focused on beautification of Ansted to promote economic development. Many of its members are past town employees.

BOY SCOUTS OF AMERICA

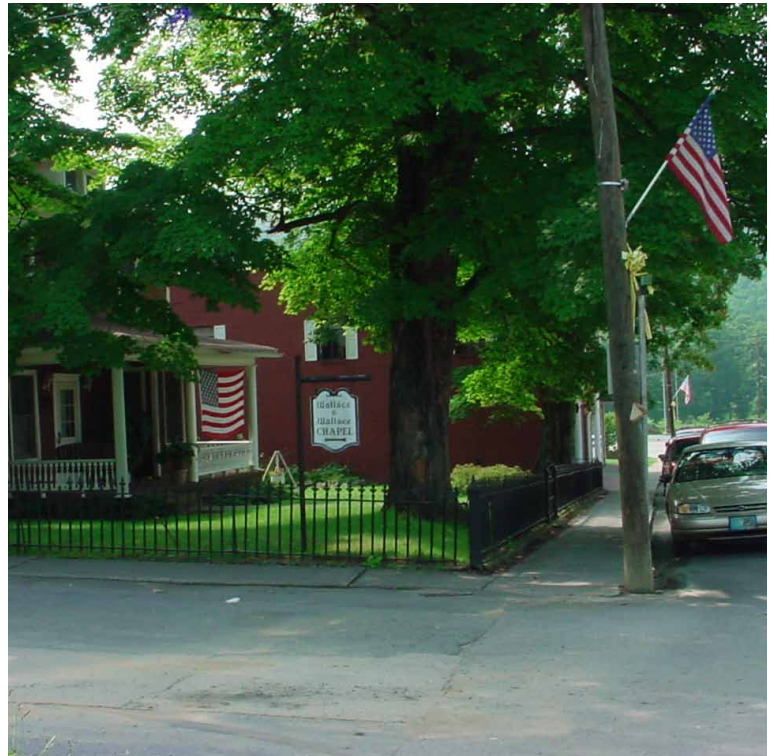
The Boy Scouts of America (BSA) are very interested in developing a trail connection from New River Gorge NR to the Gauley River NRA (via Hawks Nest State Park) that would enable scouts to experience multi-day treks. As a result BSA is offering volunteer assistance with trail construction to the town of Ansted for extensions to the Hawks Nest Rail-Trail. BSA is planning to assist with construction of the Hawks Nest rail-trail extension within the town from the existing trailhead north to the cemetery; this will likely be accomplished during the summer of 2013. BSA is also planning to assist with construction of a new multi-purpose trail along the New River that will connect Hawks Nest State Park with New River Gorge NR; this trail segment will go from the existing NPS Hawks Nest Connector Trail (that ends at the downstream NR boundary) to the existing Hawks Nest Rail-Trail (near the state park's nature center). BSA could continue to offer volunteer assistance with construction of the trail north over the Gauley Mountains if and when agreements are reached with private landowners for the trail right-of-way.

HAWKS NEST STATE PARK

Hawks Nest State Park has cooperated with the town of Ansted regarding planning and development of the Hawks Nest Rail-Trail. The town owns the rail-trail right-of-way and has responsibility for its management where it passes through the park. The planned trail connection from the end of the rail-trail to New River Gorge NR will initially pass through state park land.

FAYETTE COUNTY

Fayette County has not been involved to date in trail planning, development, and management within the corridor. The county could become more involved with the trail connection as work proceeds on extending the trail from the town of Ansted over the Gauley Mountains to the Gauley River NRA. Further consultation with the county is needed to assess its interest in participating as a partner, particularly to assess its interest in holding trail easements or in owning the trail right-of-way where land is acquired in fee.



Local shops, restaurants, and attractions found in the town of Ansted provide trail-related services in the connection corridor.

3.5 CAPITAL COST ESTIMATE

Table 3.3 summarizes estimated order-of-magnitude costs (2012\$) for development of the connection from New River Gorge NR to Gauley River NRA (Ansted). The estimate is a conceptual (Class C) cost estimate based on square foot /linear foot or typical unit costs of similar construction. Table 2.1 above provides unit cost assumptions used to assemble the estimate.

Table 3.3: New River Gorge NR to Gauley River NRA Connection (2012\$)

Description	Quantity	Unit	Cost/Unit		Total Cost	
			Low	High	Low	High
8' Multi-purpose trail						
Segment 1	0.4	mile	\$80,000	\$100,000	\$32,000	\$40,000
Segment 2b	0.5	mile	\$80,000	\$100,000	\$40,000	\$50,000
Segment 3	2	mile	\$80,000	\$100,000	\$160,000	\$200,000
Segment 4a	2.7	mile	\$80,000	\$100,000	\$216,000	\$270,000
Segment 4b	0.6	mile	\$80,000	\$100,000	\$48,000	\$60,000
Segment 4c	0.7	mile	\$80,000	\$100,000	\$56,000	\$70,000
Segment 5b	0.6	mile	\$80,000	\$100,000	\$48,000	\$60,000
sub-total multi-purpose trail					\$600,000	\$750,000
Shared Roadway						
Segment 2a	.3	mile	\$0		\$0	
Segment 5a	2.9	mile	\$0		\$0	
sub-total shared roadway					\$0	
Trailhead						
Gravel Parking (10 spaces)	1	each	\$14,500		\$14,500	
Vault Toilet	1	each	\$15,000		\$15,000	
Bench	2	each	\$350		\$700	
Picnic Tables	2	each	\$350		\$700	
Kiosk	1	each	\$6,000		\$6,000	
sub-total trailhead					\$36,900	
Total Cost New River Gorge NR to Gauley River NRA Connection					\$636,900	\$786,900

gauley river nra to
new river gorge nr (meadow river) 4

Figure 4.1:
**Gauley River NRA to
 New River Gorge NR (Meadow River)**
 Trail Connection Corridor Setting

Potential Trail Connection Segments

- Approved and Funded Trails
- Other Trails Recommended in the GMP

Existing Trails and Scenic Byways

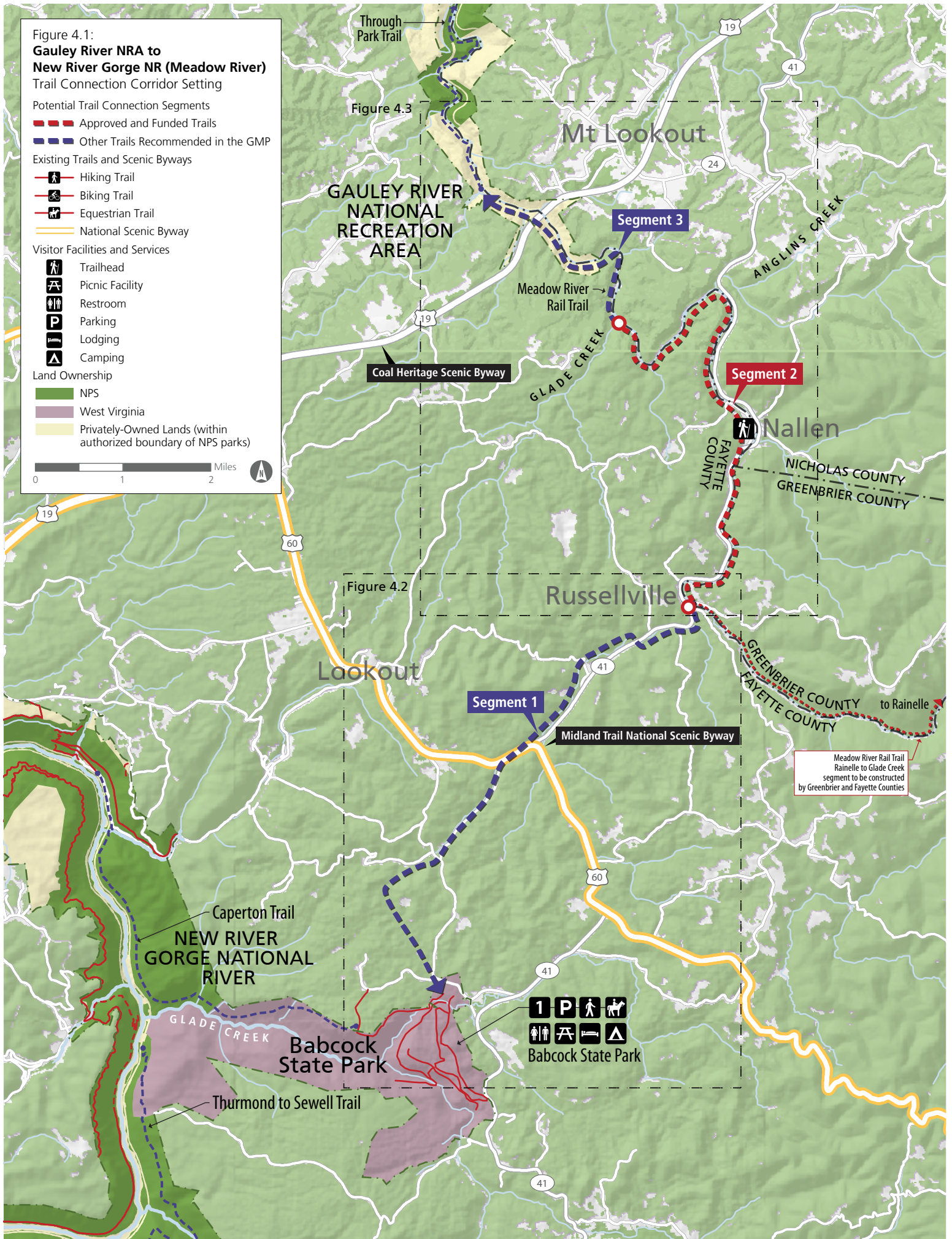
- Hiking Trail
- Biking Trail
- Equestrian Trail
- National Scenic Byway

Visitor Facilities and Services

- Trailhead
- Picnic Facility
- Restroom
- Parking
- Lodging
- Camping

Land Ownership

- NPS
- West Virginia
- Privately-Owned Lands (within authorized boundary of NPS parks)



gauley river nra to new river gorge nr (meadow river) 4

4.1 CONNECTION CORRIDOR

The Gauley River NRA to New River Gorge NR connection would provide a trail linking the two parks via Nallen and Russellville, generally following the Meadow River and WV Route 41 corridors. The trail would connect to New River Gorge NR via Babcock State Park (which is within the authorized boundary of the New River Gorge NR). Privately-owned forest lands generally characterize most of the corridor. Abandoned railroad rights-of-way offer potential for trail development. Raleigh and Greenbrier Counties have already purchased portions of one right-of-way for purposes of developing the Meadow River Rail-Trail.

4.1.1 Existing Trails

There are no existing trails in the corridor between the Gauley River NRA and New River Gorge NR. At the southern end of the segment Babcock State Park has a well-developed trail network (table 4.1 and figure 4.1).

Table 4.1: Existing Trail Network

Map #	Trail	Length (mi)	Trail Typology	Use	
				Hike	Bike
1	Babcock SP Trail Network	9.3	Varies	•	•

4.1.2 Existing Attractions

Existing trail access and trail-related recreational amenities in the corridor include:

- **Babcock State Park.** The 4,127-acre state park includes a fully operable grist mill, guided tours and recreational opportunities such as camping, hiking, fishing, swimming, and horseback riding.
- **Camp Washington-Carver at Babcock State Park.** The cultural arts center provides summer programming ranging from music concerts to theater and is available for special events.



Major attractions along the potential segment include visitor facilities at Babcock State Park. The reconstructed Glade Creek Grist Mill offers visitors with opportunities to learn about grain mills which were common throughout the region at the turn of the century.

(image: "Glade Creek Grist Mill." Photograph: jculverhouse. Available from Flickr: <http://www.flickr.com/photos/jculverhouse/6256306414/>)

4.1.3 Visitor Services and Amenities

Services and amenities in the connection corridor are available at:

- **Babcock State Park.** The state park includes lodging, camping facilities and day-use facilities



The planned Meadow River Rail-Trail would cross the river via remnant rail trestles. Near Russellville rails have been pulled.



Outside of Nallen, portions of the Meadow River Rail-Trail trace railroad grade located in a tight corridor between WV Route 41 and the Meadow River.

4.2 ONGOING TRAIL PLANNING

On-going planning initiatives to connect Gauley River NRA to New River NR include:

- **Meadow River Rail-Trail.** Fayette and Greenbrier Counties have acquired 16.5 miles of abandoned rail right-of-way from Nallen to Rainelle. The first phase of construction, planned for 2013, will be the segment from Nallen to Russellville.

Trail planning for the Gauley River NRA is considering one proposed trail in the vicinity (figure 4.1):

- The Through Park Trail is planned to link the three ends of the park: Tailwaters, Swiss, and the Meadow River (at US 19). The trail would include existing trail or road, new trail construction, and future abandoned rail rights-of-way.

Trail plans developed by the NCHA (NCHA 2009) and West Virginia Trail Plan Committee (2002) identify one additional proposed trail in the vicinity (figure 4.1):

- **Midland Trail Bikeway.** Identified in both the NCHA and West Virginia Trail Plans, the proposed on-street bikeway would parallel the Midland National Scenic Byway for 130 miles from Lewisburg to White Sulphur Springs.

4.3 POTENTIAL TRAIL CONNECTION ALIGNMENT

Figures 4.2 and 4.3 illustrate the potential trail connection identified by partners through the planning process. Table 4.2 corresponds to figures 4.2 and 4.3 and summarizes distances, planning status, existing trail classifications, land ownership, use, surface, features requiring special consideration, and future trail classifications.

The connection is envisioned as a multi-purpose trail along abandoned railroad grade. The network would primarily serve two user groups: inter-trail hikers/bikers and community members for exercise.

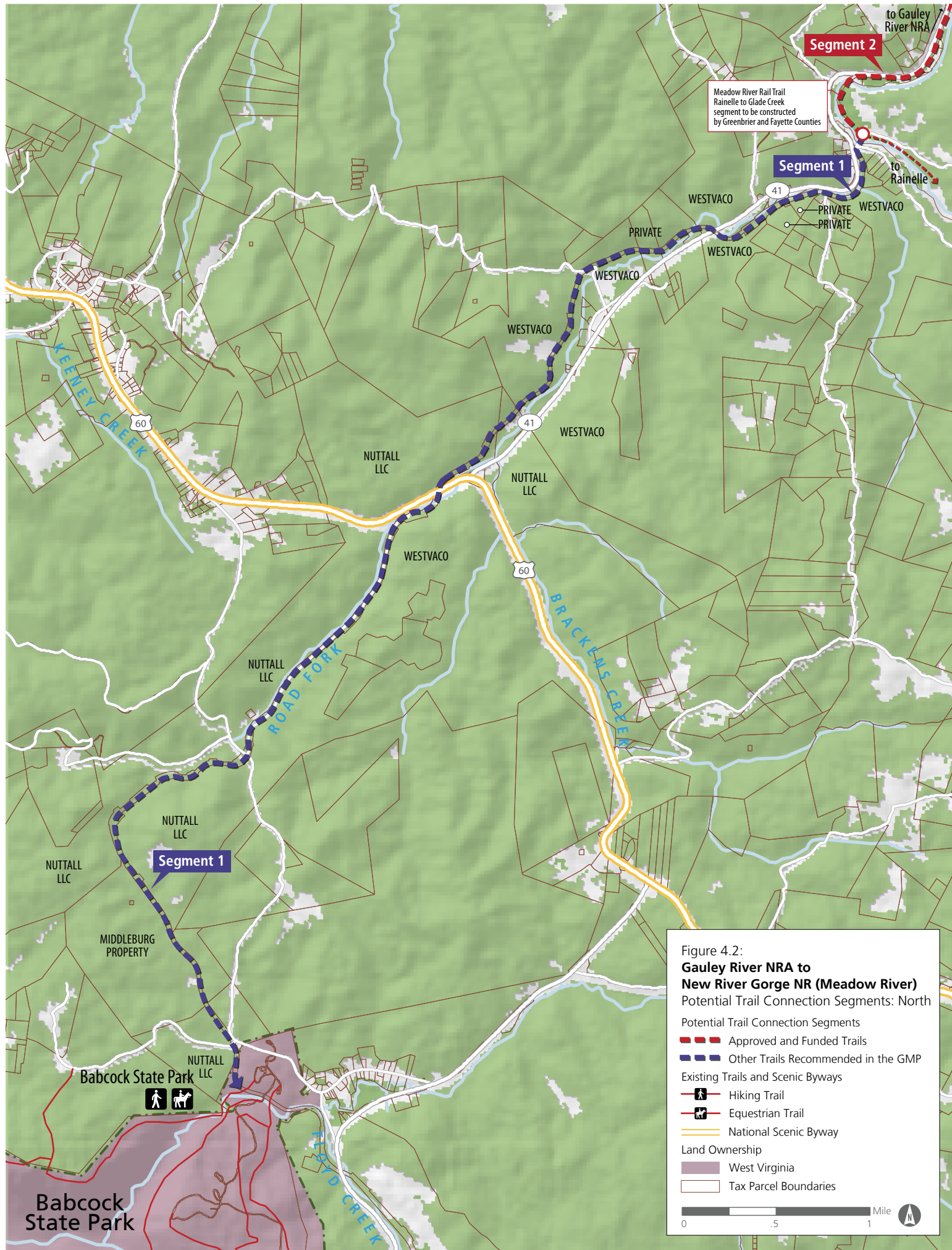
Segment 1 would extend from New River Gorge NR through Babcock SP to Russellville along an abandoned railroad grade. Further work is required to identify options for establishing a safe crossing of US Route 60 and WV Route 41. Traffic speed and volume along US Route 60 warrant consideration of an elevated pedestrian crossing or signalized at-grade crossing improvements. Options for crossing WV Route 41 include improvements such as installing a crosswalk with a pedestrian crossing sign.

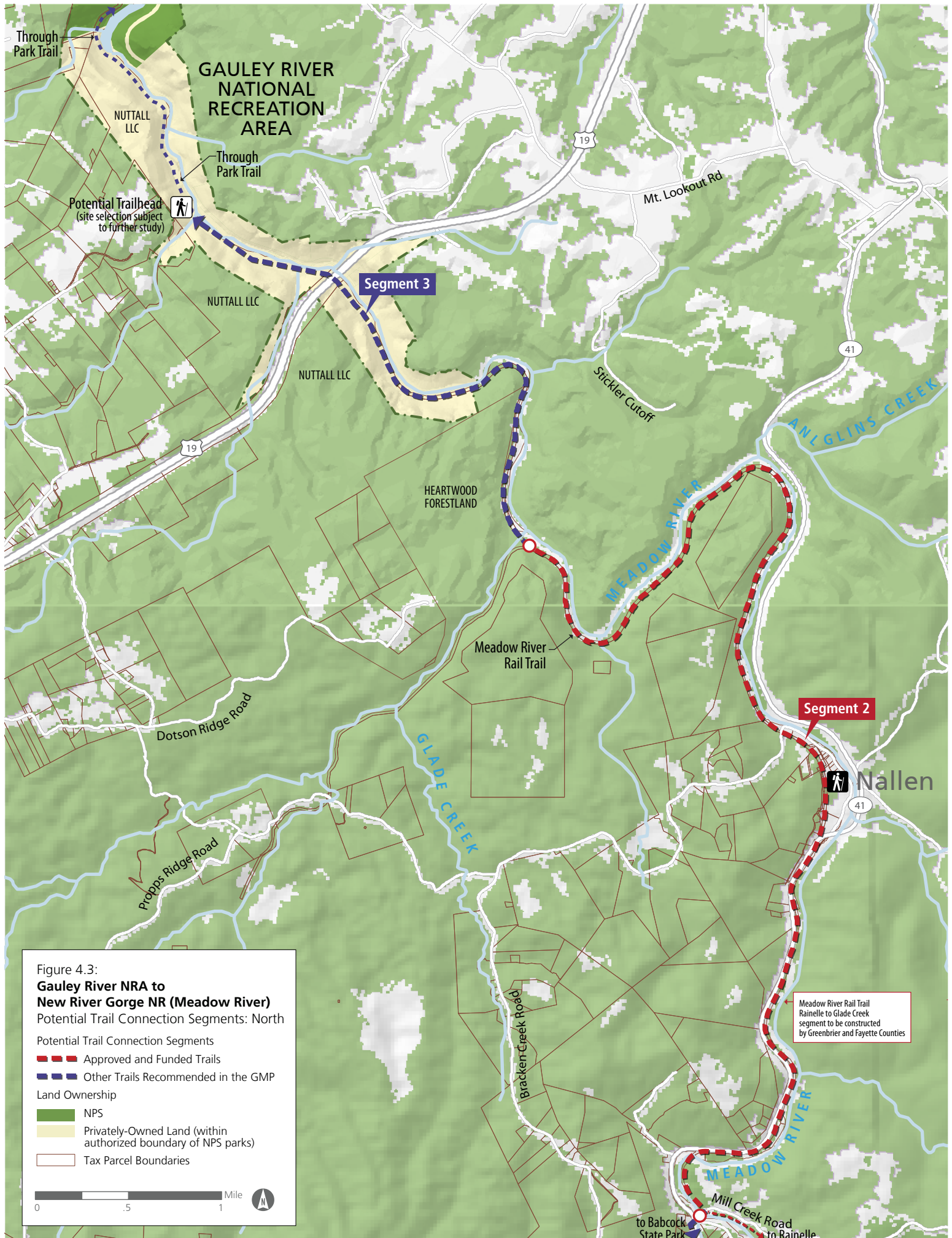
Continuing north, segment 2 would extend from Russellville to the mouth of Glade Creek. Owned by Fayette and Greenbrier Counties, the segment would follow the Meadow River Rail-Trail that is planned to run from Rainelle to Nallen. The first phase of the Meadow River Rail-Trail construction includes a trailhead at Nallen. Similar to segment 1, the trail's intersection with WV Route 41 would require improvements to establish a safe pedestrian crossing.

Segment 3 would continue northwest to Gauley River NRA along the abandoned railroad right-of-way. The segment would cross below the US Route 19 bridge to connect to the proposed Gauley River NRA Through Park Trail.

Table 4.2: Existing and Potential Trail Conditions

	Segment 1: Babcock State Park to Russellville	Segment 2: Russellville to Glade Creek	Segment 3: Glade Creek to Gauley River NRA
Distance	7.7 miles	7.0 miles	3.2 miles
Trail Status	Other trails recommended in the GMP	Approved and funded	Other trails recommended in the GMP
Planning Status	Potential alignment identified based on aerials and tax maps	Potential alignment identified, field verified	Potential alignment identified based on aerials and tax maps
Existing Trail Classification	Railroad grade	Railroad grade	Railroad grade
Land Ownership	Various private owners	Fayette and Greenbrier Counties	Various private owners
Use	None	None	None
Surface	Natural	Natural	Natural
Features Requiring Special Needs	<ul style="list-style-type: none"> • Ownership requires further examination - right-of-way may have reverted • Route 41 pedestrian and bicyclist crossing • Route 60 pedestrian and bicyclist crossing 	<ul style="list-style-type: none"> • Route 41 pedestrian and bicyclist crossing 	<ul style="list-style-type: none"> • Ownership requires further examination - right-of-way may have reverted
Future Trail Classification	8' Rail-trail <ul style="list-style-type: none"> • hike • bike 	8' Rail-trail <ul style="list-style-type: none"> • hike • bike 	8' Rail-trail <ul style="list-style-type: none"> • hike • bike





4.4 POTENTIAL PARTNERS

Trail planning for the connection between Gauley River NRA and New River Gorge NR via the Meadow River has focused on the Meadow River Rail-Trail, a joint effort of Fayette and Greenbrier Counties with technical assistance from the NPS Rivers, Trails, and Conservation Assistance Program and the West Virginia Department of Highways. While this rail-trail will extend from Nallen to Rainelle, only the segment from Nallen to Russellville is part of the desired connection between the two national parks.

An NPS Challenge Cost Share grant covered initial appraisal and mapping costs. The right-of-way was acquired with federal stimulus grant monies. A federal stimulus grant provided funding for right-of-way acquisition and for an environmental survey. A federal Recreational Trails Program grant along with matching funds from the two counties is providing construction funds for the first phase of the project.

FAYETTE COUNTY

Fayette County is developing the Meadow River Rail-Trail jointly with Greenbrier County. The two counties have created a joint improvement board whose mission initially is development of the rail-trail. In the future the county is a potential partner to assist with acquisition of the rail right-of-way between Babcock State Park and the Meadow River Rail-Trail. Further consultation with the county is needed to assess its interest in participating as a partner, particularly with assessing its interest in holding trail easements or in owning the trail right-of-way where land is acquired in fee.

NON-PROFIT LAND CONSERVATION ORGANIZATION

There is a potential role for a non-profit conservation organization to assist with approaching landowners in the connection corridor. A conservation organization could potentially negotiate acquisition of the historic railroad right-of-way that has reverted to the adjoining landowners.

BABCOCK STATE PARK

A trail connection will ultimately be needed through Babcock State Park to the proposed Caperton Trail in the Glade Creek corridor of New River Gorge NR. The NPS would collaborate with the state park to improve existing trails that would provide this connection through Babcock State Park.

BOY SCOUTS OF AMERICA

The Boy Scouts of America (BSA) are very interested in developing a trail connection from New River Gorge NR (via Babcock State Park) to the Gauley River NRA that would enable scouts to experience multi-day treks. As a result BSA could offer volunteer assistance with trail construction where needed along the connection. One section where volunteer assistance could be useful would be the proposed Caperton Trail in the Glade Creek Corridor of New River Gorge NR and Babcock State Park where existing trails would need to be improved.

4.5 CAPITAL COST ESTIMATE

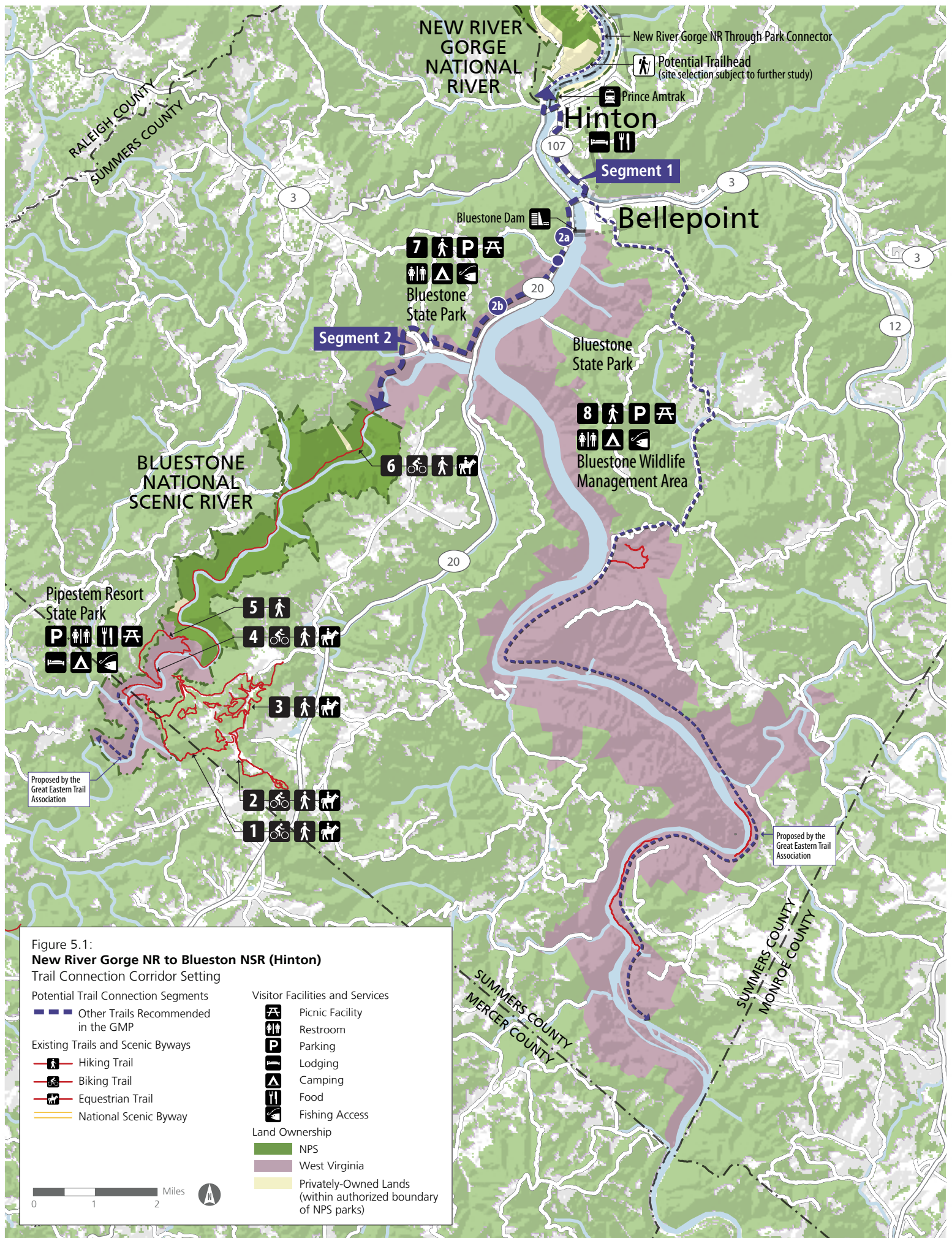
Table 4.3 summarizes estimated order-of-magnitude costs (2012\$) for development of the connection from Gauley River NRA to New River Gorge NR (Meadow River). The estimate is a conceptual (Class C) cost estimate based on square foot /linear foot or typical unit costs of similar construction. Table 2.1 above provides unit cost assumptions used to assemble the estimate.

Table 4.3: Gauley River NRA to New River Gorge NR Connection (2012\$)

Description	Quantity	Unit	Cost/Unit		Total Cost	
			Low	High	Low	High
8' Rail-trail						
Segment 1	7.7	mile	\$80,000	\$100,000	\$616,000	\$770,000
Segment 2	7	mile	\$80,000	\$100,000	\$560,000	\$700,000
Segment 3	3.2	mile	\$80,000	\$100,000	\$256,000	\$320,000
sub-total multi-purpose trail					\$1,432,000	\$1,790,000
Trailhead						
Gravel Parking (10 spaces)	1	each	\$14,500		\$14,500	
Vault Toilet	1	each	\$15,000		\$15,000	
Bench	2	each	\$350		\$700	
Picnic Tables	2	each	\$350		\$700	
Kiosk	1	each	\$6,000		\$6,000	
sub-total trailhead					\$36,900	
Total Cost Gauley River NRA to New River Gorge NR (Meadow River) Connection					\$1,468,900	\$1,826,900

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new river gorge nr to bluestone nsr (hinton) 5



new river gorge nr to bluestone nsr (hinton) 5

5.1 CONNECTION CORRIDOR

The New River Gorge NR to Bluestone NSR connection would provide a trail between the two parks via Hinton. It would begin at the southern end of the proposed New River Gorge NR Through Park Connector Trail and extend south through Hinton and Bluestone State Park before entering the Bluestone NSR. Much of the corridor in the valley bottom from New River Gorge NR to Hinton to Bluestone State Park is developed in residential and commercial uses. Adjoining the developed areas on the valley bottom are steeply sloping valley walls characterized by large tracts of privately-owned forest land.



The 9.5-mile Bluestone Turnpike trail traces an old riverbank road through Bluestone NSR. The trail connects to adjacent trail networks at Bluestone State Park (to the north) and Pipestem Resort State Park (to the south).

(image: "The Bluestone Turnpike Trail crosses the Little Bluestone." Photograph. Free Stock Assets. Available from Flickr: <http://www.freestockassets.com/NationalParkImagePagesBluestoneNationalScenic.html>)

5.1.1 Existing Trails

Adjacent trail networks present a range of experiences at Bluestone State Park, Pipestem Resort State Park, Bluestone NSR, and Bluestone Wildlife Management Area (WMA). Table 5.1 describes the formalized trail network. The column titled "Map #" corresponds to trails illustrated on figure 5.1.

Table 5.1: Existing Trail Network

Map #	Trail	Length (mi)	Trail Typology	Use		
				Hike	Bike	Equine
1	County Line Trail	2.3	Multi-Purpose	•	•	•
2	Guided Horse-back Trail	3	Multi-Purpose	•	•	•
3	Lakeshore Trail	2.7	Multi-Purpose	•	•	•
4	River Trail	5	Multi-Purpose	•	•	•
5	Farley Loop	2.5	Multi-Purpose	•	•	
6	Bluestone Turnpike Trail	7.2	Multi-Purpose	•	•	•
7	Bluestone State Park		Hike	•		
8	Bluestone WMA		Hike	•		

5.1.2 Existing Attractions

Existing trail access and trail-related recreational amenities in the corridor include:

- **Pipestem Resort State Park.** The state park includes conference facilities, a nature center, outdoor amphitheater, aerial tramway, and recreational opportunities such as camping, golfing, and fishing.
- **Bluestone State Park.** The state park provides opportunities for a variety of water-based recreational experiences including fishing, boating, and swimming. The park also offers seasonal nature and recreation programs.
- **Bluestone Wildlife Management Area.** The 17,632-acre wildlife management area offers opportunities for boating, fishing, picnicking, primitive camping, and hunting.

- **Bluestone Dam.** Forming the Bluestone Lake, the dam is located upstream of the New and Greenbrier Rivers confluence. The dam includes a visitor center, from which tours are offered from Memorial to Labor Day.



The Bluestone Dam, an attraction in the connection corridor, forms the Bluestone lake and includes a visitor center and guided tours.

(image: "Aerial of Bluestone Dam." Photograph. USACEpublicaffairs. Available from Flickr: <http://www.flickr.com/photos/usacehq/6283253627/>)

5.1.3 Visitor Services and Amenities

Services and amenities in the connection corridor are available at:

- **Hinton.** Hinton includes several lodging options, shops, restaurants, opportunities for interpretation, and an Amtrak station.
- **Pipestem Resort State Park.** The state park includes lodging, camping facilities, a restaurant, and day-use facilities.
- **Bluestone State Park.** The state park includes lodging, camping facilities, and day-use facilities.



Hinton offers visitors opportunities for both walking and driving tours through the town's historic streets and hosts annual fairs and festivals throughout the year.

5.2 ONGOING TRAIL PLANNING

The New River Gorge NR to Bluestone NSR connection would tie into the proposed Through Park Connector Trail at the southern end of New River Gorge NR. The New River Gorge GMP (NPS 2009a) includes the proposed Through Park Connector Trail, a north-south through park hike and bike trail. It will unify the park and enable visitors to travel its entire length on a singletrack trail at or near the New River.

With the assistance of the American Hiking Society and local trail partners, the Great Eastern Trail (GET) Association is working to connect existing trail networks to establish an 1800-mile footpath spanning nine states from Alabama to New York. GET's initial mission is to establish an organizational structure encompassing the entire length of the trail to build capacity for trails in areas where there are gaps. One gap occurs in the Hinton area where plans for the trail include an unspecified connection from Bluestone State Park, across the New River, through the Bluestone Wildlife Management Area, to Monroe County (figure 5.1).

5.3 POTENTIAL TRAIL CONNECTION ALIGNMENT

Figure 5.1 illustrates the potential trail connection identified by partners through the planning process. Table 5.2 corresponds to the segments illustrated in figure 5.1 and summarizes distances, planning status, existing trail classifications, land ownership, use, surface, features requiring special consideration, and future trail classifications.

The New River Gorge NR to Bluestone NSR and Bluestone WMA is currently in preliminary phases of the planning process. On-street connections are being considered as land ownership and topography present challenges to identifying viable off-street options. The segments illustrated are conceptual and require additional work to determine if there are feasible off-street options. The shared roadway would require coordination with the local WV Department of Transportation district to obtain encroachment permits and work with traffic engineers to determine signage, striping, and other improvements.

From the north, segment 1 would begin as an on-street trail following the New River Parkway to WV Route 20. The potential trail would cross the New River at the WV Route 20 bridge. The bridge includes a wide striped shoulder but lacks sidewalks. Continuing south, the trail would follow a network of roads and sidewalks through Hinton. Further work is required to identify the route through Hinton.

Segment 2 would cross the Greenbrier River via the US Route 20 bridge to Belleville. Segment 2 would continue across the New River along the WV Route 3 bridge. The WV Routes 20 and 3 bridges include both striped shoulders for bicycle traffic and sidewalks on the westbound lanes for pedestrian use. The segment would continue as an on-street trail along WV Route 20 to Bluestone State Park. From Bluestone State Park, the trail would continue as an off-street trail and connect to the existing Bluestone Turnpike Trail at Bluestone NSR.

Table 5.2: Existing and Potential Trail Conditions

	Segment 1: New River Gorge NR to Bellepoint	Segment 2: Bellepoint to Bluestone NSR
Distance	2.5 miles	6.4 miles
Trail Status	Other trails recommended in the GMP	Other trails recommended in the GMP
Planning Status	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required
Existing Trail Classification	County Road	County Road
Land Ownership	Public (ROW)	Public (ROW)
Use	County Road	County Road
Surface	Paved	Paved
Features Requiring Special Needs	<ul style="list-style-type: none"> Hinton Route Coordination with WV Department of Transportation to obtain encroachment permits and determine signage, striping, and other improvements 	<ul style="list-style-type: none"> Coordination with WV Department of Transportation to obtain encroachment permits and determine signage, striping, and other improvements
Future Trail Classification	Shoulder bikeway and shared roadway	Shared roadway

5.4 POTENTIAL PARTNERS

Trail planning for the New River Gorge NR to Bluestone NSR via Hinton is in its earliest stages. A group of partners has not yet emerged. Potential partners include the city of Hinton, the U.S. Army Corps of Engineers, Bluestone State Park, and the Great Eastern Trail Association.

CITY OF HINTON

Much of the connection between New River Gorge NR and Bluestone State Park would pass through the city of Hinton. The city has expressed interest in collaborating with NPS on exploring trail alignment options. Much of the trail in this section would likely be a shared roadway trail or via existing or new sidewalks, necessitating involvement of the city's public works department as well as the Mayor's Office. Site specific study is needed to identify an alignment which best utilizes existing sidewalks and new sidewalk connections that can be accommodated within existing road rights-of-way.

U.S. ARMY CORPS OF ENGINEERS

Some land along WV Route 20 on river left is owned by the U.S. Army Corps of Engineers at Bluestone Dam. More detailed study of potential alignments may reveal that a portion of the trail connection might be located on land owned by the U.S. Army Corps of Engineers. It would be desirable to connect the trail to the dam overlook/fishing pier along WV Route 20.

BLUESTONE STATE PARK

Upstream of Bluestone Dam, much of the trail connection could be located on land within Bluestone State Park. Consultation with the state park is needed to explore options. New trail construction would be required. From the dam to the park entrance an alignment might be possible within the park along either side of WV Route 20. Once at the park entrance a new trail could be developed parallel to the park access road which would connect to the existing park trail system. A trail connection would be needed to the existing trailhead for the Bluestone Turnpike Trail.

GREAT EASTERN TRAIL ASSOCIATION

The Great Eastern Trail Association is in the very early stages of planning a trail segment through the Hinton area. The association is a potential partner who could collaborate with other partners in the trail corridor.

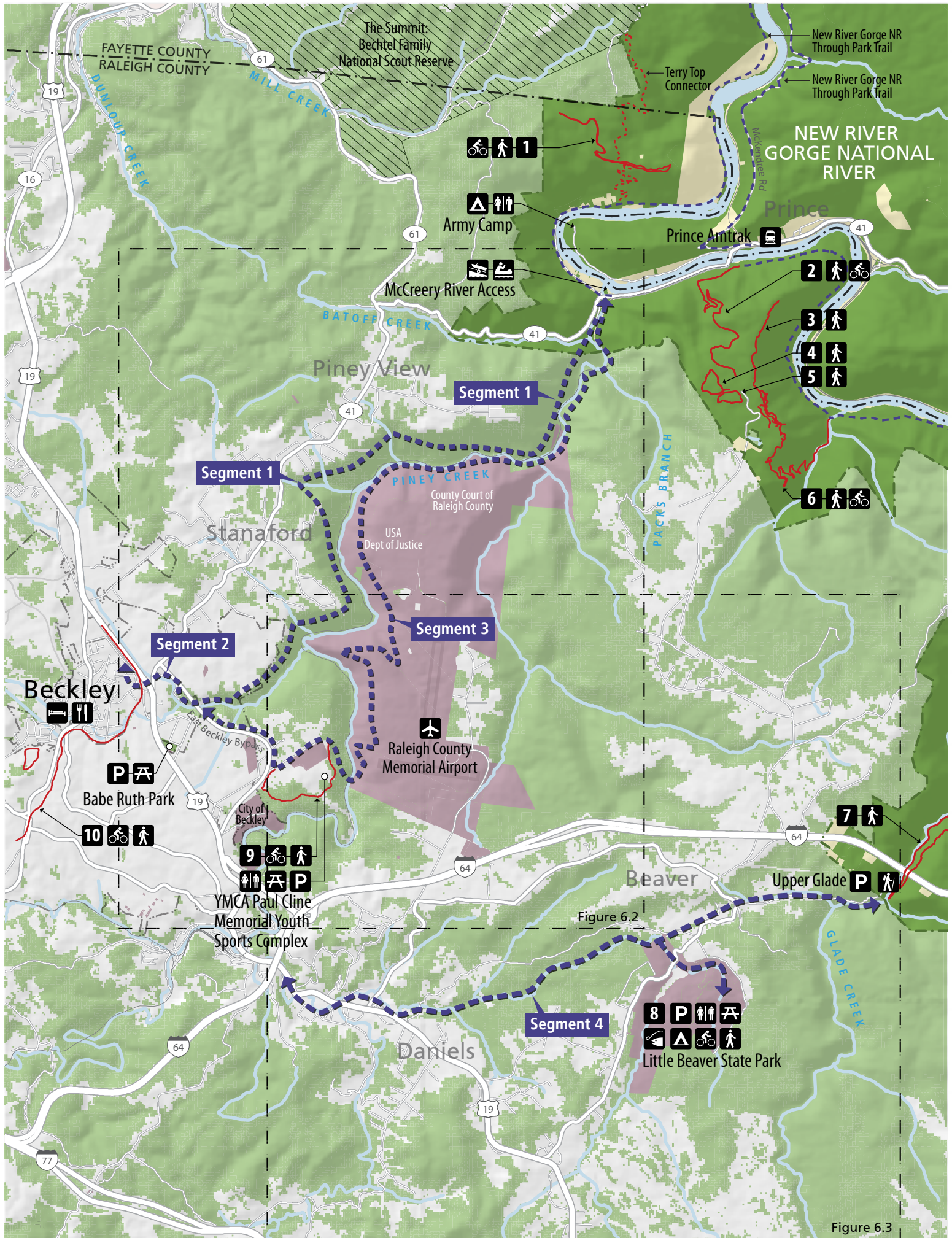
5.5 CAPITAL COST ESTIMATE

Table 5.3 summarizes estimated order-of-magnitude costs (2012\$) for development of the connection from New River Gorge NR to Bluestone NSR (Hinton). The estimate is a conceptual (Class C) cost estimate based on square foot /linear foot or typical unit costs of similar construction. Table 2.1 above provides unit cost assumptions used to assemble the estimate.

Table 5.3: New River Gorge NR to Bluestone NSR Connection (2012\$)

Description	Quantity	Unit	Cost/Unit		Total Cost	
			Low	High	Low	High
8' Multi-purpose trail						
Segment 2b	5.1	mile	\$80,000	\$100,000	\$408,000	\$510,000
sub-total multi-purpose trail					\$408,000	\$510,000
Shared Roadway						
Segment 1	0.4	mile	\$0		\$0	
Segment 2a	0.5	mile	\$0		\$0	
sub-total multi-purpose trail					\$0	
Trailhead						
Gravel Parking (10 spaces)	1	each	\$14,500		\$14,500	
Vault Toilet	1	each	\$15,000		\$15,000	
Bench	2	each	\$350		\$700	
Picnic Tables	2	each	\$350		\$700	
Kiosk	1	each	\$6,000		\$6,000	
sub-total trailhead					\$36,900	
Total Cost New River Gorge NR to Bluestone NSR Connection					\$444,900	\$546,900

beckley to new river gorge nr 6



beckley to new river gorge nr 6

6.1 CONNECTION CORRIDOR

The Beckley to New River Gorge NR connection would provide two trails to the park. One would follow Piney Creek gorge, entering the park near the existing McCreery river access, tying into a future trail to be developed by the NPS. On Piney Creek left, the land in this corridor is largely composed of privately-owned forested land. On Piney Creek right, much of the land in this corridor is owned by the Raleigh County Airport Authority, the US Department of Justice, and the County Court of Raleigh County. The Raleigh County Airport and federal and county prisons are on the plateau and the steep gorge walls remain forested.

The second connection from Beckley would follow the Little Beaver Creek drainage, with a spur to Little Beaver State Park. It would enter the New River Gorge NR near Glade Creek, tying into the existing Glade Creek Trail. The corridor varies in character ranging from densely developed residential areas to privately-owned forested land with dispersed areas of single-family residential development. An abandoned rail right-of-way paralleling Little Beaver Creek offers potential for trail development.



Operated by the city of Beckley, the paved 3-mile Beckley Rail-Trail provides a hike/bike connection between Mabscott and Beckley Crossing Shopping Center.

6.1.1 Existing Trails

Trails adjacent to the Beckley to New River NR segment present a range of experiences. Conditions vary from the formalized Beckley Rail-Trail and New River Gorge NR trail network to the informal network of ATV trails following mine benches and logging roads in Piney Creek gorge. The existing trail network presents opportunities to connect the segment to communities, attractions, and larger trail networks within the region. Table 6.1 describes the formalized trail network. The column titled "Map #" corresponds to trails illustrated on figure 6.1.

In addition to the formalized off-street trail network, the East Beckley Bypass includes on-street bicycling facilities. When complete, the 8.25-mile bike route will include shoulder bikeways and connect Appalachian Corridor to I-64.

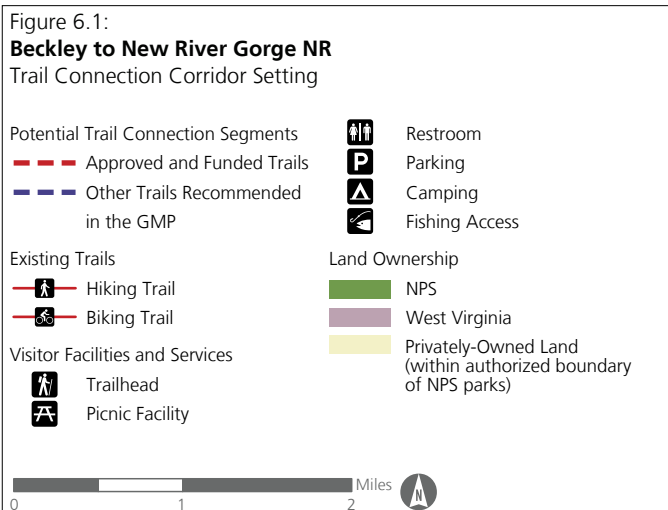


Table 6.1: Existing Trail Network

Map #	Trail	Length (mi)	Trail Typology	Use	
				Hike	Bike
1	Terry Top	1.7	Multi-Purpose	●	●
2	Little Laurel	2.7	Multi-Purpose	●	●
3	Grandview Rim	1.6	Single Track	●	
4	Big Buck	0.9	Single Track	●	
5	Woodland Loop	0.6	Single Track	●	
6	Mud Turn	2.3	Multi-Purpose	●	●
7	Kates Plateau	5.1	Single Track	●	
8	Little Beaver SP		Multi-Purpose	●	●
9	Soccer Fields	1.5	Multi-Purpose	●	●
10	Beckley Rail-Trail	3	Rail-Trail	●	●

6.1.2 Existing Attractions

Existing trail access and trail-related recreational amenities in the corridor include:

- **The Summit: Bechtel Family National Scout Reserve.** Operated by the Boy Scouts of America, the 10,600-acre high adventure center will offer opportunities for white water rafting, rock climbing, rappelling, mountain biking, hiking, orienteering, and other high adventure activities.
- **Beckley.** Beckley offers opportunities for dining, shopping and recreation. Major attractions include the Beckley Exhibition Coal Mine and Youth Museum, Tamarack – Shopping the Best of West Virginia, and Theatre West Virginia.
- **YMCA Paul Cline Memorial Youth Sports Complex.** The multi-purpose facility includes soccer fields, a walking trail, playground, concessions, picnic shelter, and parking.
- **Little Beaver State Park.** The state park includes parking, picnic shelters, playgrounds, hiking/biking trails, and camping facilities.
- **Prince Amtrak.** The station serves as the main depot for Fayette County and is the only manned depot between Charlottesville, Virginia and Charleston, West Virginia.

6.1.3 Visitor Services and Amenities

Beckley serves as a major service hub in the region and contains a concentration of hotels, restaurants, and shops. Beckley also includes several outfitters and bike shops.



Built in 1942, the Prince Amtrak Station continues to serve as the main depot for Fayette County.

(image: "Amtrak's The Cardinal - Prince, WV." Photograph. Available from Flickr: <http://www.flickr.com/photos/redarrow101/4217037770/>)

6.2 ONGOING TRAIL PLANNING

On-going planning initiatives to connect Beckley to New River Gorge NR include efforts by a partner group to identify a connection along Piney Creek. The Beckley to New River Gorge NR connection would tie into the proposed Through Park Connector Trail in the McCreery area. The New River Gorge GMP (NPS 2009a) includes the proposed Through Park Connector Trail, a north-south through park hike and bike trail. It will unify the park and enable visitors to travel its entire length on a singletrack trail at or near the New River.

NPS is also exploring potential options for a proposed trail from the bottom of Piney Creek Gorge where the trail connection would enter New River Gorge NR, to the McCreery river access where it would join the proposed Through Park Connector Trail.

6.3 POTENTIAL TRAIL CONNECTION ALIGNMENT

Figures 6.2 and 6.3 illustrate the potential trail connection identified by partners through the planning process. Table 6.2 corresponds to figures 6.2 and 6.3 and summarizes distances, planning status, existing trail classifications, land ownership, use, surface, features requiring special consideration, and future trail classifications.

The Beckley to New River Gorge NR connection is largely envisioned as a multi-purpose trail. Connecting neighborhoods, businesses and parks, the network would primarily serve inter-trail hikers/bikers and community members.

Complicated ownership, steep terrain, and rail crossings present challenges to making the Beckley to New River Gorge NR connection. The partner group is currently focusing its efforts on segment 3. Segments 1, 2, and 4 are presented as long-term connections.



The potential alignment along Piney Creek would follow mine benches and logging roads actively used by ATVs and hikers from the surrounding community.

Segment 1 would follow existing logging roads and mine benches through the Piney Creek Gorge. Tributary crossings present major challenges to segment 1 and would require the construction of several footbridges. The segment would also require significant earthwork to clear areas blocked by large rocks and grade areas where water often pools and makes the route impassable.

From Cranberry Creek, segment 2 would follow a series of existing sidewalks and streets to the Beckley Rail-Trail. Major challenges in identifying an alignment include steep topography, crossing Cranberry Creek, crossing US Route 19 and connecting to the grade of the rail-trail from the surrounding road network. The illustrated alignment is conceptual and requires additional work to determine the most feasible option for connecting Cranberry Creek to the rail-trail. As illustrated in figure 6.2, one option includes continuing northeast from

Cranberry Creek along Stanaford Mine Road to the on-street bike path along the planned East Beckley Bypass. Connecting to the planned East Beckley Bypass is subject to conversations with partners.



Segment 2, as viewed from the East Beckley Bypass Bridge, would trace mine benches along creek left. Recent rock slides have eliminated ATV use along the stretch that was popular among riders. The benches remain largely clear of vegetation.

Segment 3a would continue southeast from Cranberry Creek, via a mine bench, logging road, and gravel road to Piney Creek. Portions of the segment would require new trail construction due to steep slopes and rocky terrain. Other challenges include crossing the active rail line and Piney Creek. The partner group is currently focusing on a potential at-grade CSX crossing where the existing gravel access road crosses the rail. One option for crossing Piney Creek would include constructing a bridge using the remaining pillars of a bridge that had been washed out.

Segment 3b would connect to the Raleigh County Memorial Airport and continue below the rim of Piney Creek Gorge to New River Gorge NR. Within the NPS boundary, the trail would require a CSX right-of-way crossing. Initial planning efforts locate the CSX crossing option behind the McCreery boathouse on WV Route 41.

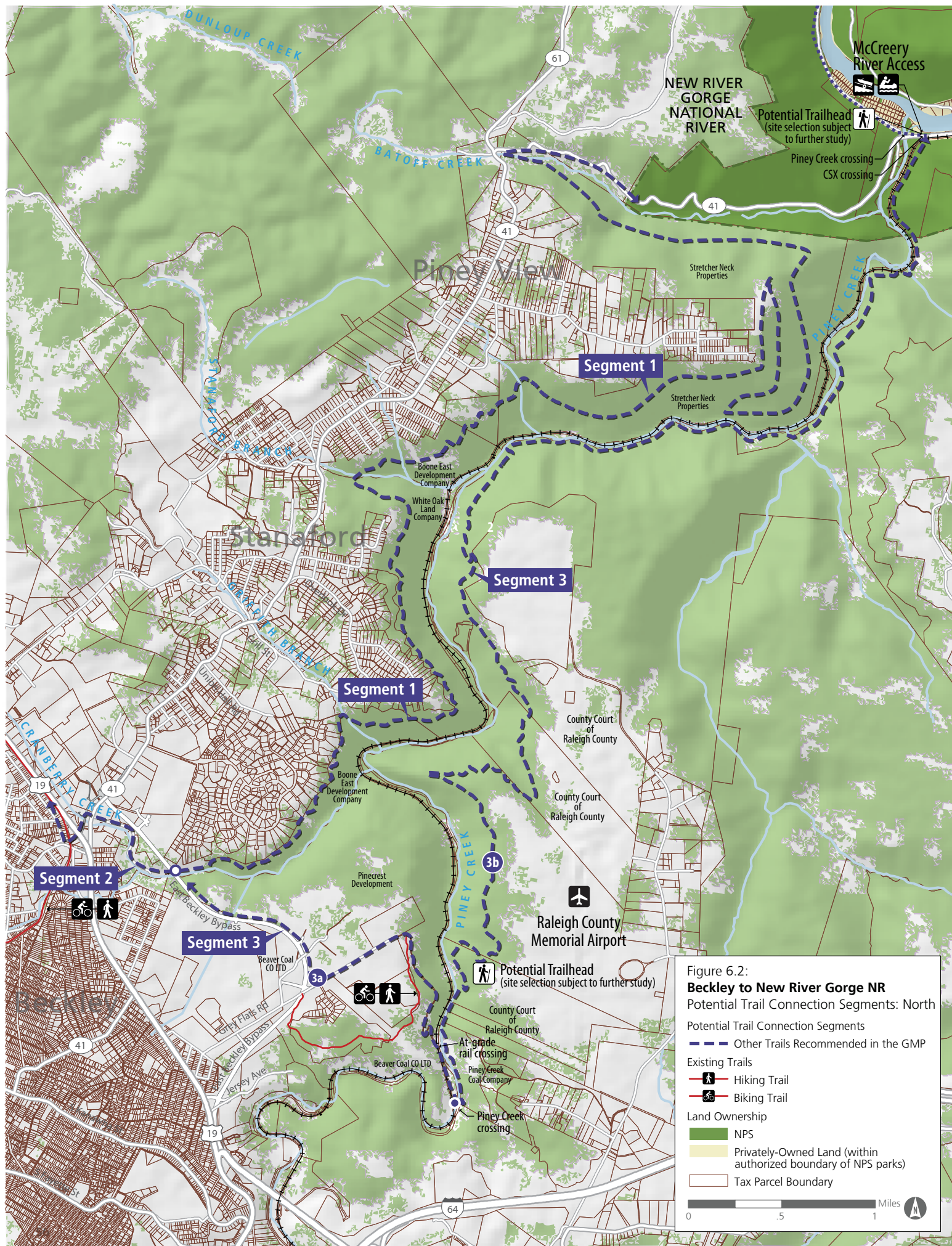
Segment 4 would extend from Beckley along an abandoned railroad right-of-way to New River Gorge NR. Ownership of the right-of-way has not been determined and requires deed research to determine reverted and railbanked ownership. In many areas, structures have been built in the right-of-way.

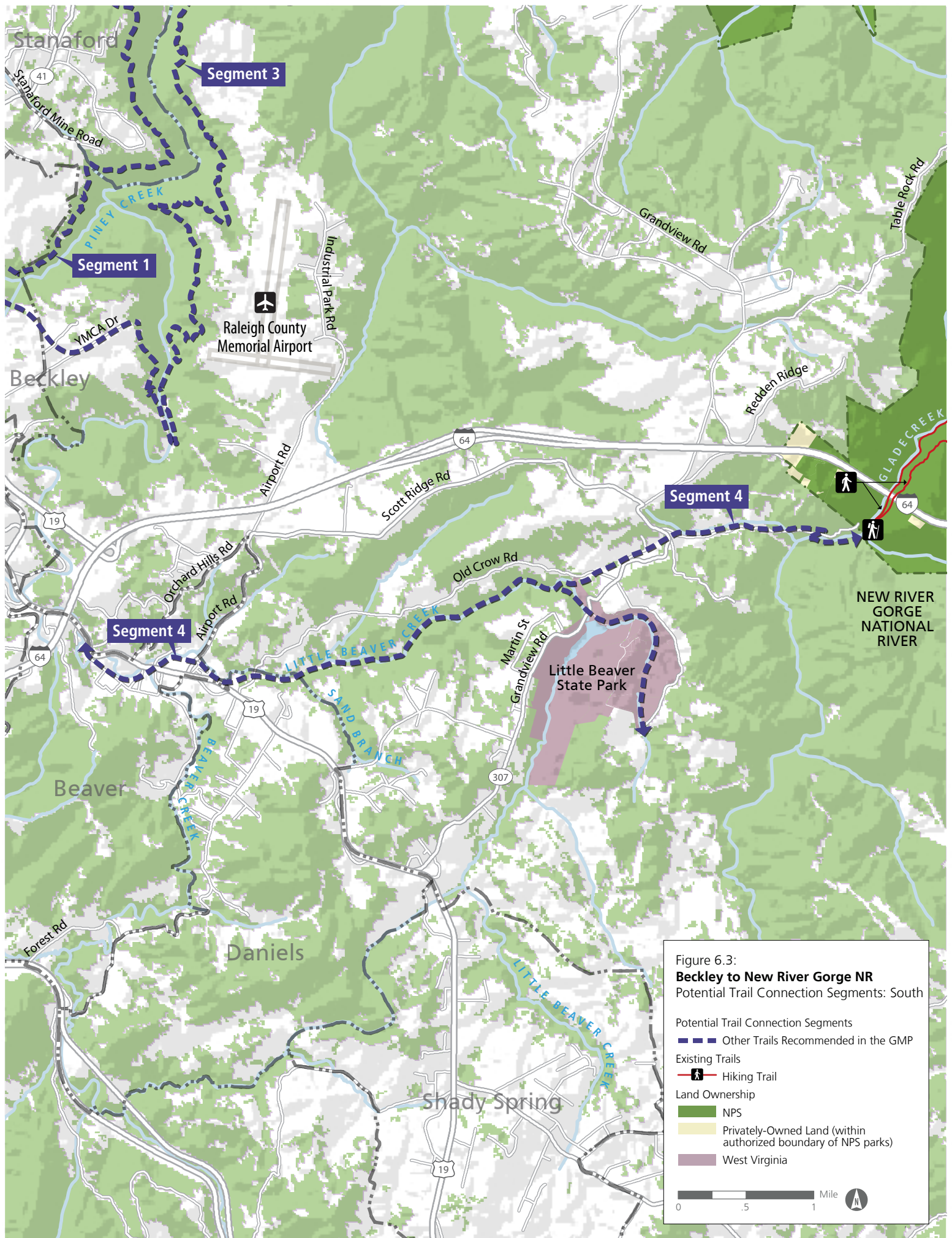
Table 6.2: Existing and Potential Trail Conditions

	Segment 1: NERI to Cranberry Creek	Segment 2: Cranberry Creek to Beckley	Segment 3: Cranberry Creek to NERI		Segment 4: Beckley to NERI (via Little Beaver State Park)
			3a. Cranberry Creek to Piney Creek	3b. Piney Creek to NERI	
Distance	11.7 miles	1.1 miles	2.7 miles	11.5 miles	8.2 miles
Trail Status	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP
Planning Status	Potential alignment identified based on aerials and tax maps, additional field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified, field verified	Potential alignment identified, field verified	Potential alignment identified based on aerials and tax maps, field verification required
Existing Trail Classification	<ul style="list-style-type: none"> • Mine Bench • Logging Road 	<ul style="list-style-type: none"> • Road 	<ul style="list-style-type: none"> • Mine Bench • Logging Road • Gravel Road 	<ul style="list-style-type: none"> • Mine Bench • Logging Road 	<ul style="list-style-type: none"> • No existing trail
Land Ownership	<ul style="list-style-type: none"> • Private 	<ul style="list-style-type: none"> • ROW 	<ul style="list-style-type: none"> • Private 	<ul style="list-style-type: none"> • County 	<ul style="list-style-type: none"> • Private • State (Little Beaver State Park)
Use	<ul style="list-style-type: none"> • hiking • biking • ATV • 4WD 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None
Surface	Natural	Paved	Natural	Natural	Natural
Features Requiring Special Needs	<ul style="list-style-type: none"> • Batoff Creek Crossing • Large rocks • Tributary crossings 	<ul style="list-style-type: none"> • Steep topography • Crossing Cranberry Creek • Crossing Route 19 • Connecting to the rail-trail grade • Coordination with WV Department of Transportation to obtain encroachment permits and determine signage, striping, and other improvements 	<ul style="list-style-type: none"> • Large rocks • Drainage • Planned subdivision • CSX crossing • Piney Creek Crossing 	<ul style="list-style-type: none"> • CSX crossing • Piney Creek Crossing 	<ul style="list-style-type: none"> • Development within ROW
Future Trail Classification	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	Sidewalk (hike) Shared roadway (bike)	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike

Challenges along segments 1 and 3 include CSX rail crossings, steep topography, large rocks, and tributary crossings.







6.4 POTENTIAL PARTNERS

A very active trail partners group has emerged in the Beckley area focused on planning, developing, and managing the trail connection from Beckley to New River Gorge NR. Initial efforts are focused on a trail that would begin at the YMCA Paul Cline Memorial Youth Sports Complex cross Piney Creek Gorge to Raleigh County Memorial Airport and then continue down the Piney Creek Gorge to the McCreery public river access on the New River in New River Gorge NR. The partner group is the logical entity to continue to spearhead trail planning efforts to connect Beckley with the park. Its primary members include representatives from Raleigh County (Airport Authority and Engineering Department), the Raleigh County Cycle Club, and the Piney Creek Watershed Association. The group is currently pursuing volunteer assistance from the Boy Scouts of America for construction of a portion of the route from the airport to McCreery during the summer of 2013. Additional potential partners in the connection corridor include the city of Beckley and Little Beaver State Park.

RALEIGH COUNTY

Raleigh County is represented in the trail planning group by the Raleigh County Memorial Airport Manager and the Raleigh County Engineer. The county owns 1,433 acres on the plateau above Piney Creek, where the Raleigh County Airport is located. The airport is assisting with the trail planning project in part to make possible a hiking trail for scouts who arrive at the airport on their way to The Summit. The county engineer is assisting to facilitate development of alternative modes of transportation in the county.

RALEIGH COUNTY CYCLE CLUB

Raleigh County Cycle Club is a non-profit whose mission is to promote safe bicycling in southern West Virginia. In addition to actual riding activities, the club is active in trail building in local parks. For several years club members have been exploring opportunities for developing new bicycle trails in the Beckley area, focused on connections from Beckley to New River Gorge NR and from Beckley to Little Beaver State Park. The club is very interested in making the trail connection to the park via the Piney Creek drainage and is actively participating in the trail planning group.

PINEY CREEK WATERSHED ASSOCIATION

Piney Creek Watershed Association is a volunteer non-profit organization founded in 2004 by local government, business, and community members. Its mission is to improve and protect water resources within the Piney Creek watershed by educating the community about water quality issues and performing service projects. Members of the association are active in trail planning for the Piney Creek connection because of the perceived opportunities for public education if residents and visitors have hiking/biking access to the gorge.

BOY SCOUTS OF AMERICA

The Boy Scouts of America (BSA) have expressed interest in assisting with development of the trail connection from the Raleigh County Memorial Airport to New River Gorge NR. This connection would enable scouts to hike from the airport to The Summit Bechtel Family National Scout Reserve. The Piney Creek trail partner group is pursuing volunteer assistance from BSA for construction of the connection.

CITY OF BECKLEY

Over the past ten years the city of Beckley has developed a 4.2-mile asphalt rail-trail from Mabscott to the Beckley Crossing Shopping Center. Ultimately it would be desirable to link the rail-trail to a future trail connection to the Piney Creek connector via a bench trail along Cranberry Creek. This would require involvement of the city of Beckley as a trail planning partner for the section across US Route 19 and WV Route 41.

LITTLE BEAVER STATE PARK

Little Beaver State Park is a 562-acre day-use park featuring a well-developed network of hiking and biking trails. The park is located along the proposed connection via the Little Beaver Creek corridor from Beckley to the Glade Creek drainage within New River Gorge NR. The park would be a logical partner to assist with the trail planning effort for the connection. Further collaboration is needed to assess the park's interest in participating in the effort.

6.5 CAPITAL COST ESTIMATE

Table 6.3 summarizes estimated order-of-magnitude costs (2012\$) for development of the connection from Beckley to New River Gorge NR. The estimate is a conceptual (Class C) cost estimate based on square foot /linear foot or typical unit costs of similar construction. Table 2.1 above provides unit cost assumptions used to assemble the estimate.

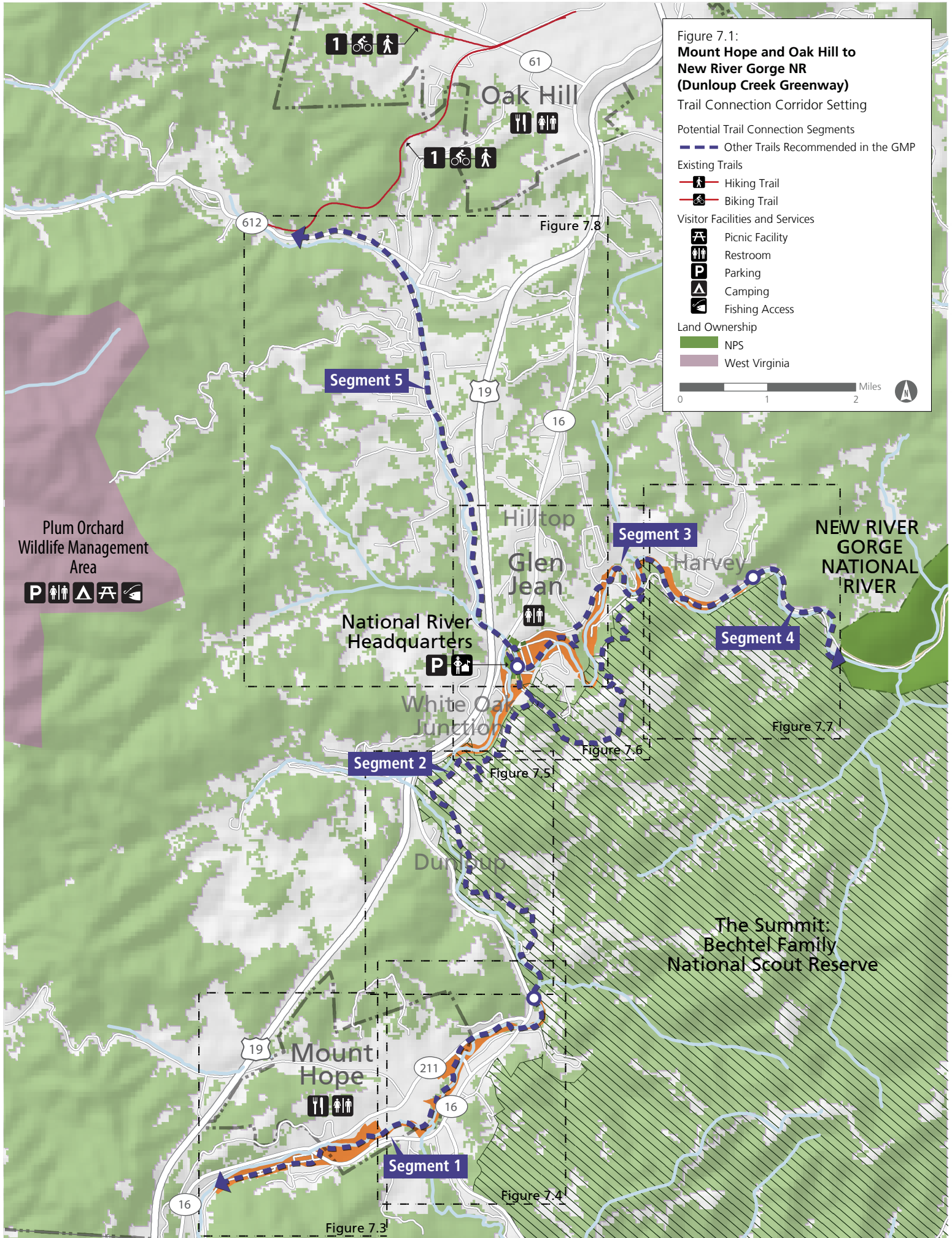
Table 6.3: Beckley to New River Gorge NR Connection (2012\$)

Description	Quantity	Unit	Cost/Unit		Total Cost	
			Low	High	Low	High
8' Multi-purpose trail						
Segment 1	11.7	mile	\$80,000	\$100,000	\$936,000	\$1,170,000
Segment 3a	2.7	mile	\$80,000	\$100,000	\$216,000	\$270,000
Segment 3b	11.5	mile	\$80,000	\$100,000	\$920,000	\$1,150,000
Segment 4	8.2	mile	\$80,000	\$100,000	\$656,000	\$820,000
sub-total multi-purpose trail					\$2,072,000	\$2,590,000
Shared Roadway						
Segment 2	1.1	mile	\$0		\$0	
sub-total shared roadway					\$0	
CSX Pedestrian Crossing						
CSX Pedestrian Crossing	2	LS	\$250,000		\$500,000	
sub-total CSX pedestrian crossing					\$500,000	
Pedestrian Bridge						
Prefabricated Bridge - 100'	1	each	\$440,000	\$520,000	\$440,000	\$520,000
Prefabricated Bridge - 50'	1	each	\$220,000	\$260,000	\$80,000	\$100,000
Prefabricated Bridge - 25'	2	each	\$110,000	\$130,000	\$80,000	\$100,000
sub-total pedestrian bridge					\$600,000	\$720,000
Trailhead						
Gravel Parking (10 spaces)	2	each	\$14,500		\$29,000	
Vault Toilet	2	each	\$15,000		\$30,000	
Bench	4	each	\$350		\$1,400	
Picnic Tables	4	each	\$350		\$1,400	
Kiosk	2	each	\$6,000		\$12,000	
sub-total trailhead					\$73,800	
Total Cost Gauley River NRA to New River Gorge NR Connection					\$3,245,800	\$3,883,800

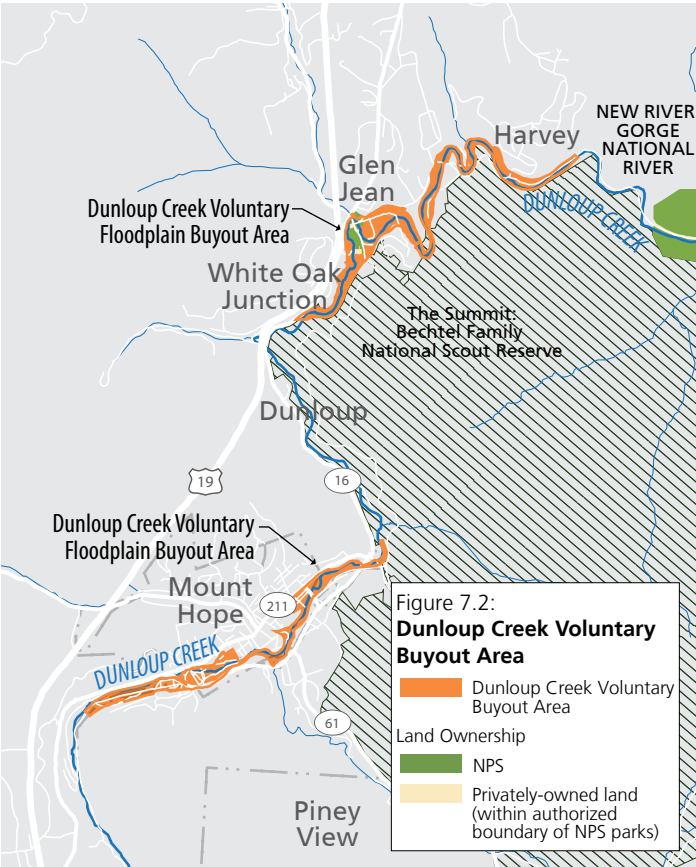
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mount hope and oak hill to new river gorge nr
(dunloup creek greenway)

7



mount hope and oak hill to new river gorge nr (dunloup creek greenway)



7.1 CONNECTION CORRIDOR

The Mount Hope and Oak Hill to New River Gorge NR connection would provide trails from Oak Hill and Mount Hope to Glen Jean. At Glen Jean the two trails would converge and continue along Dunloup Creek to below the community of Harvey, where the trail would enter New River Gorge NR. A new park trail link would be required to continue downstream to Southside Junction where the trail would join the proposed Through Park Connector Trail.

Land in the valley bottom along Dunloup Creek from Mount Hope to New River Gorge NR is within the Dunloup Creek Voluntary Floodplain Buyout Area administered by the Natural Resources Conservation Service of the U.S. Department of Agriculture. The federal government is purchasing, from

willing sellers, the land along the creek that is subject to recurring flooding. Once purchased the properties are cleared of structures. Vacated properties may be used for purposes such as parks, greenways, picnic areas, hiking trails, and wildlife viewing. The Summit: Bechtel Family National Scout Reserve borders Dunloup Creek on creek right along much of the connection.

The connection from Oak Hill to Glen Jean in the valley bottom is composed of small privately-owned residential and commercial parcels. An abandoned rail right-of-way offers potential for trail development.

7.1.1 Existing Trails

Table 7.1 describes the formalized trail network in the connection corridor. The column titled “Map #” corresponds to trails illustrated on figure 7.1.

Table 7.1: Existing Trail Network

Map #	Trail	Length (mi)	Trail Typology	Use	
				Hike	Bike
1	White Oak Rail-Trail	7.8	Multi-Purpose	•	•



The trailhead at the Oak Hill Train Station provides access to the 7-mile White Oak Rail-Trail. Opened in 2008, the trail provides a hike/bike route through Oak Hill and connects to schools and parkland .

7.1.2 Existing Attractions

Existing trail access and trail-related recreational amenities in the corridor include:

- **Oak Hill.** Oak Hill offers opportunities for dining, shopping, and recreation.
- **Mount Hope.** Mount Hope offers opportunities for dining and shopping. Attractions include the New River Company and the “Famous New River Smokeless Coal” portal.
- **Glen Jean.** Once a center for the coal mining industry, Glen Jean is now home to the NPS headquarters for New River NR, Gauley River NRA, and Bluestone NSR. Park headquarters offers opportunities for interpretation and visitor orientation.
- **The Summit: Bechtel Family National Scout Reserve.** Now under construction, the Boy Scouts of America’s 10,600-acre high adventure center will offer opportunities for whitewater rafting, rock climbing, rappelling, mountain biking, hiking, orienteering, and other adventure activities.
- **Plum Orchard Wildlife Management Area.** The 3,201-acre wildlife management area offers opportunities for boating, fishing, picnicking, camping, and hunting.

7.1.3 Visitor Services and Amenities

Services and amenities in the connection corridor are available at:

- **Oak Hill.** Oak Hill serves as a service hub and offers a range of options for lodging, dining, and shopping. Visitor information is available at the New River Convention and Visitors Bureau. Oak Hill also includes several outfitters and bike shops.

7.2 ONGOING TRAIL PLANNING

Recent plans identifying connections to Mount Hope and Oak Hill to New River Gorge include:

- Dunloup Creek Watershed Plan - Environmental Impact Statement
- Mount Hope: A Vision Renewed A Comprehensive Plan for Historic Preservation and Economic Revitalization, 2005-2010
- The Past Reflected in the Hopes for the Future: Report from the Community Design Team Visit to Mount Hope, 2006

On-going planning initiatives to connect the New River Gorge NR include:

- **White Oak Rail-Trail Extension.** Efforts are currently underway to determine right-of-way ownership from Oak Hill to Glen Jean.

7.3 POTENTIAL ALIGNMENT

Figures 7.2 to 7.7 illustrate the potential trail connection identified by partners through the planning process. Table 7.2 corresponds to figures 7.2 to 7.7 and summarizes distances, planning status, existing trail classifications, land ownership, use, surface, features requiring special consideration, and future trail classifications.

The Oak Hill and Mount Hope to New River Gorge NR connection is largely envisioned as a multi-purpose trail with limited on-street segments following existing roadways and sidewalks. Within the Dunloup Creek Voluntary Buyout Area, the trail is conceptualized as a greenway that would parallel Dunloup Creek through floodplain restoration areas and offer opportunities for recreation, interpretation, and water access.

The southern stretch of the Dunloup Creek Greenway, segment 1, would offer opportunities for active recreation, interpretation, and community gathering spaces throughout Mount Hope. Segment 1 would include on-street connections extending from the greenway along key streets throughout Mount Hope.

Segment 2 would trace a combination of paved county roads and logging roads within The Summit: Bechtel Family National Scout Reserve. Lacking shoulders and sidewalks, portions of the trail along county roads would be shared roadway and require signage and the exploration of other possible pedestrian/ bicycle enhancements. The segment of shared roadway would require coordination with the local WV Department of Transportation district to obtain encroachment permits and work with traffic engineers to determine signage, striping, and other improvements. The alignment through the Summit would require coordination and planning with the Boy Scouts of America.

Continuing along Dunloup Creek, segment 3 would form the northern stretch of the greenway. The segment would be a combination of on- and off-street connections. In many areas, there would be room to establish an off-street trail for pedestrians and bicycles. In other stretches, the road corridor is located tightly between Dunloup Creek and the active railway. In areas where a designated non-motor route is not possible, signage and the exploration of other possible pedestrian/ bicycle enhancements would be required. The segment of shared roadway would require coordination with the local WV Department of Transportation district to obtain encroachment permits and work with traffic engineers to determine signage, striping, and other improvements.

Extending from the boundary of the Dunloup Creek Voluntary Buyout Area to New River Gorge NR, segment 4 would parallel Dunloup Creek. The segment would traverse the Summit and require coordination and planning with the Boy Scouts of America.

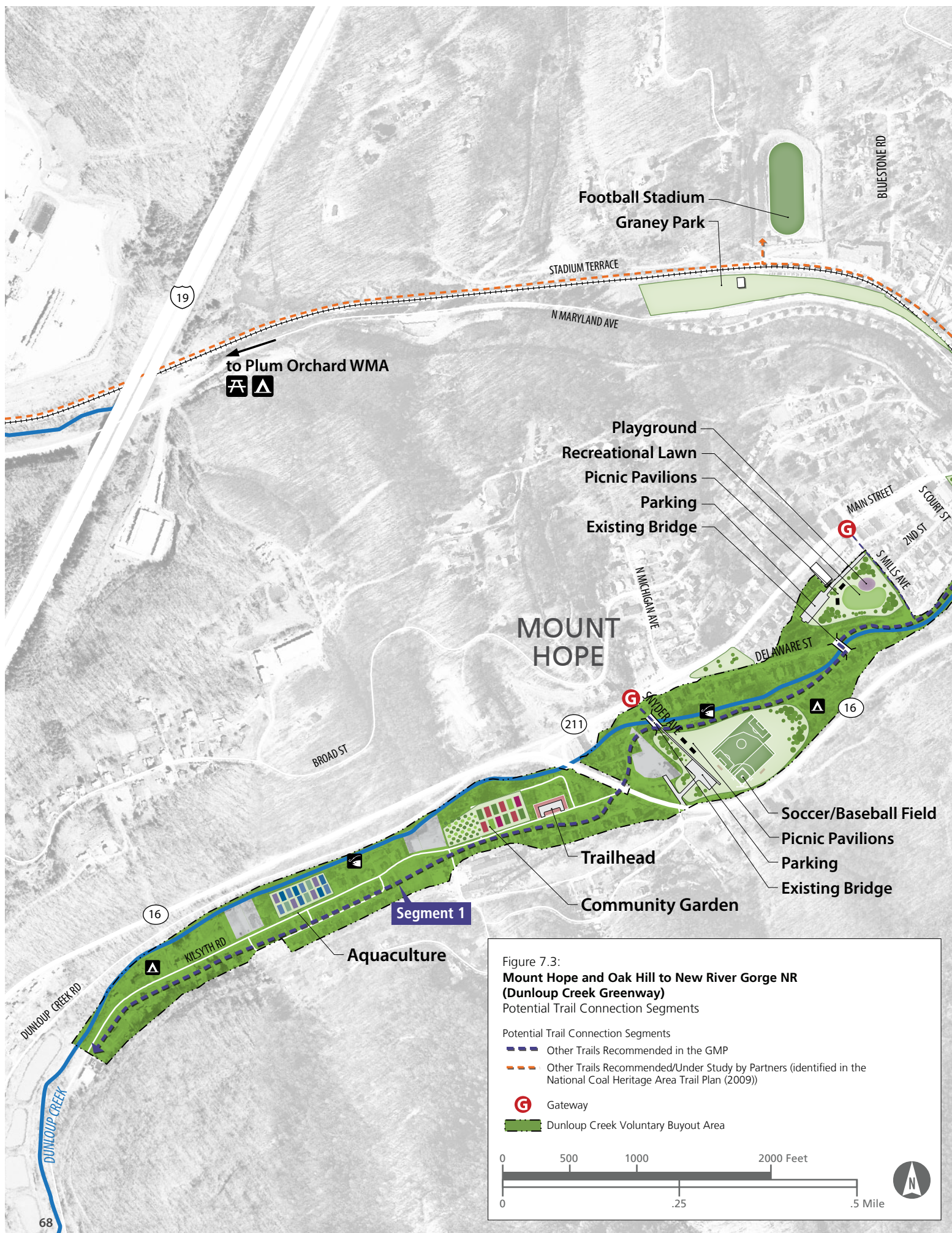
Segment 5 would extend from the existing White Oak Rail-Trail, following an abandoned railroad right-of-way to Glen Jean. Deed research is required to determine ownership of the abandoned right-of-way and to assess the feasibility of using the right-of-way for trail purposes.

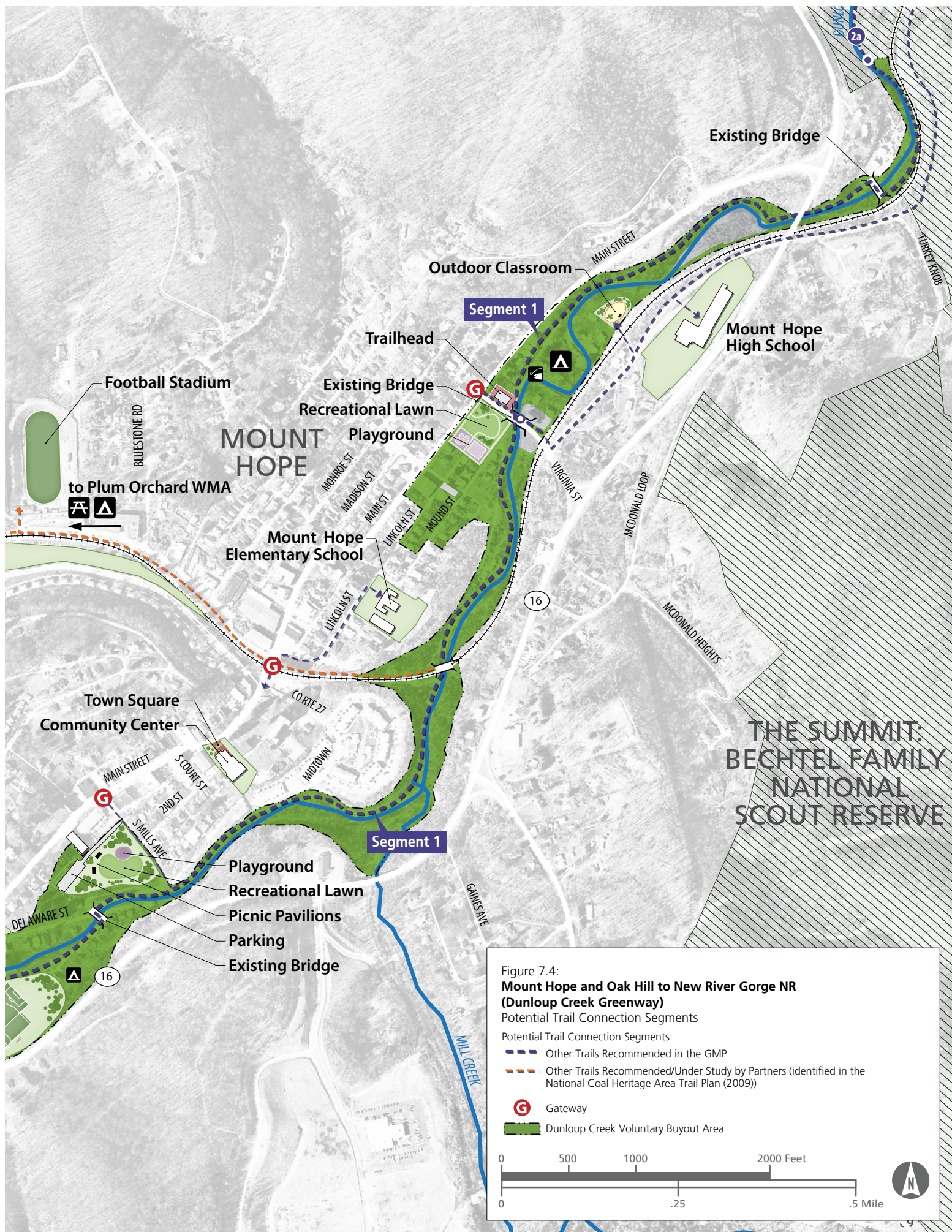


Within the Dunloup Creek Voluntary Buyout Area, the connection is conceptualized as a greenway that would parallel Dunloup Creek through floodplain restoration areas and offer opportunities for recreation, interpretation, and water access.

	Segment 1: Dunloup Greenway (Mount Hope)	Segment 2: Dunloup Greenway Connector (Mount Hope to Glen Jean)			
		2a	2b	2c	2d
Distance	2.4 miles	0.2 miles	0.2 miles	3.8 miles	0.1 miles
Trail Status	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP
Planning Status	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required
Existing Trail Classification	No existing trail	Private road	County road	Logging/skid road	County road
Land Ownership	Dunloup Creek Voluntary Floodplain Buyout Area	The Summit: Bechtel Family National Scout Reserve	The Summit: Bechtel Family National Scout Reserve	The Summit: Bechtel Family National Scout Reserve	The Summit: Bechtel Family National Scout Reserve
Use	None	None	None	None	None
Surface	Natural	Paved	Paved	Natural	Paved
Features Requiring Special Needs		Alignment will traverse The Summit: Bechtel Family National Scout Reserve and require collaboration with BSA	Alignment will traverse The Summit: Bechtel Family National Scout Reserve and require collaboration with BSA	Alignment will traverse The Summit: Bechtel Family National Scout Reserve and require collaboration with BSA	Alignment will traverse The Summit: Bechtel Family National Scout Reserve and require collaboration with BSA
Future Trail Classification	8' Multi-purpose trail: • hike • bike	Shared roadway	Shared roadway	8' Multi-purpose trail: • hike • bike	Shared roadway

	Segment 3: Dunloup Greenway (Glen Jean)				Segment 4: Dunloup Greenway to NERI	Segment 5: Oak Hill to Glen Jean
	3a	3b	3c	3d		
Distance	0.4 miles	0.6 miles	0.2 miles	1.4 miles	1.0 miles	2.9 miles
Trail Status	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP
Planning Status	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps
Existing Trail Classification	County road	No existing trail	County road	No existing trail	No existing trail	Railroad grade
Land Ownership	Dunloup Creek Voluntary Floodplain Buyout Area	Dunloup Creek Voluntary Floodplain Buyout Area	Dunloup Creek Voluntary Floodplain Buyout Area	Dunloup Creek Voluntary Floodplain Buyout Area	Two private landowners: <ul style="list-style-type: none"> • Meadow Creek Coal • The Summit: Bechtel Family National Scout Reserve 	Unknown
Use	None	None	None	None	None	None
Surface	Paved	Natural	Paved	Natural	Paved	Natural
Features Requiring Special Needs					Alignment will traverse The Summit: Bechtel Family National Scout Reserve and require collaboration with BSA	Ownership is unknown. Further deed research is required to determine reverted and railbanked ownership.
Future Trail Classification	Shared roadway	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	Shared roadway	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	8' Multi-purpose trail: <ul style="list-style-type: none"> • hike • bike 	8' Rail-trail <ul style="list-style-type: none"> • hike • bike





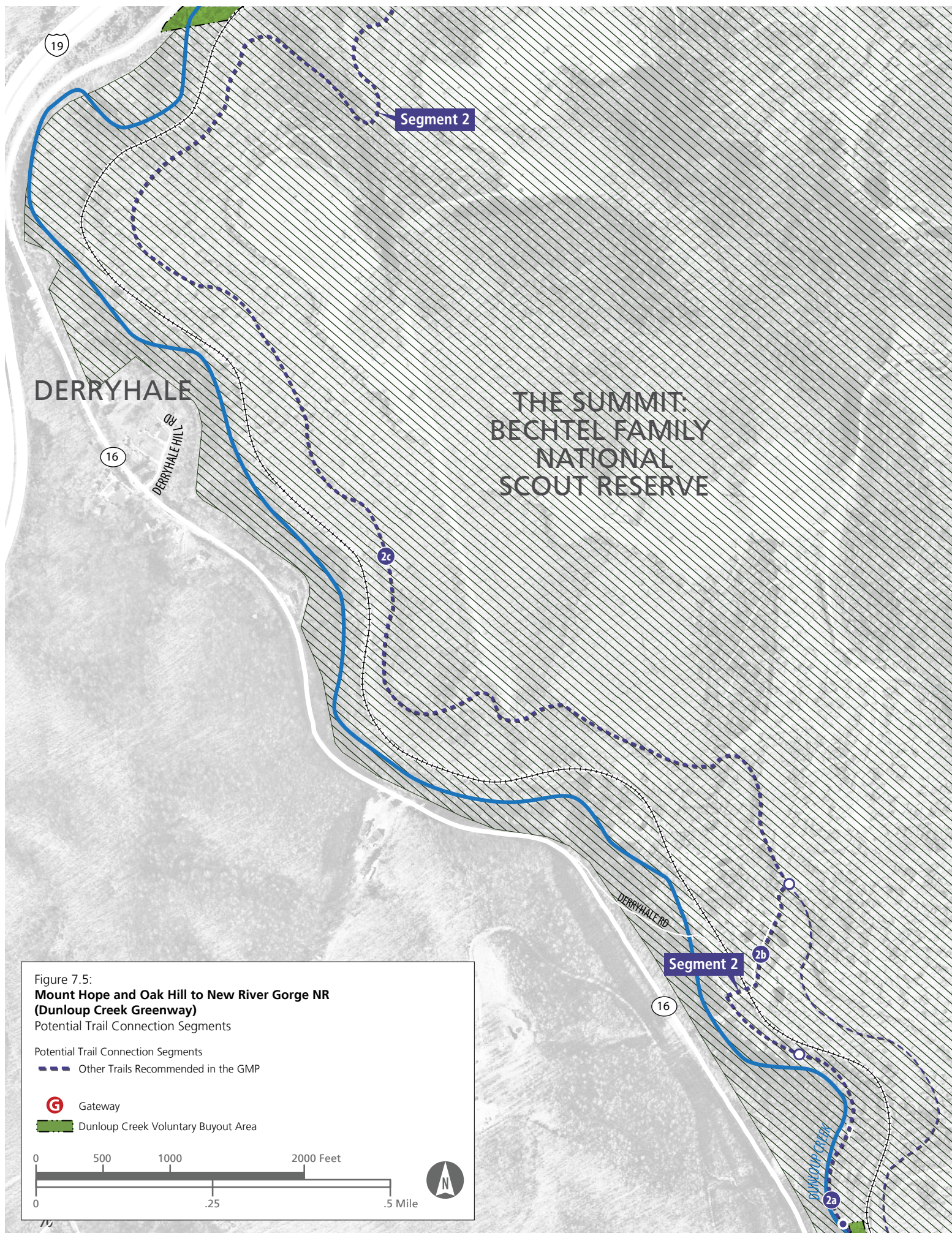


Figure 7.6:
**Mount Hope and Oak Hill to New River Gorge NR
 (Dunloup Creek Greenway)**

Potential Trail Connection Segments

Potential Trail Connection Segments

Other Trails Recommended in the GMP

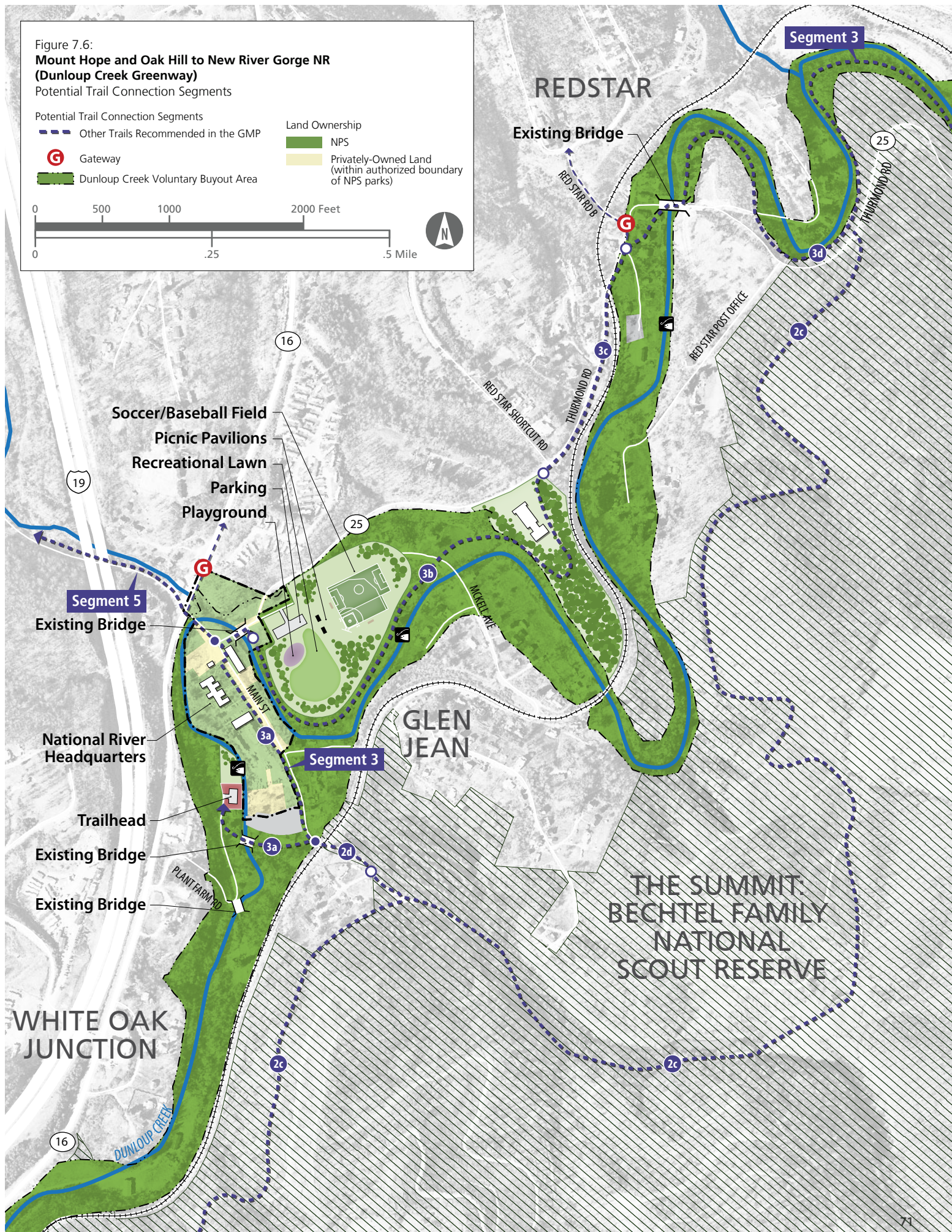
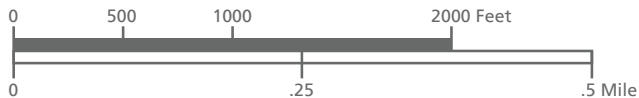
Gateway

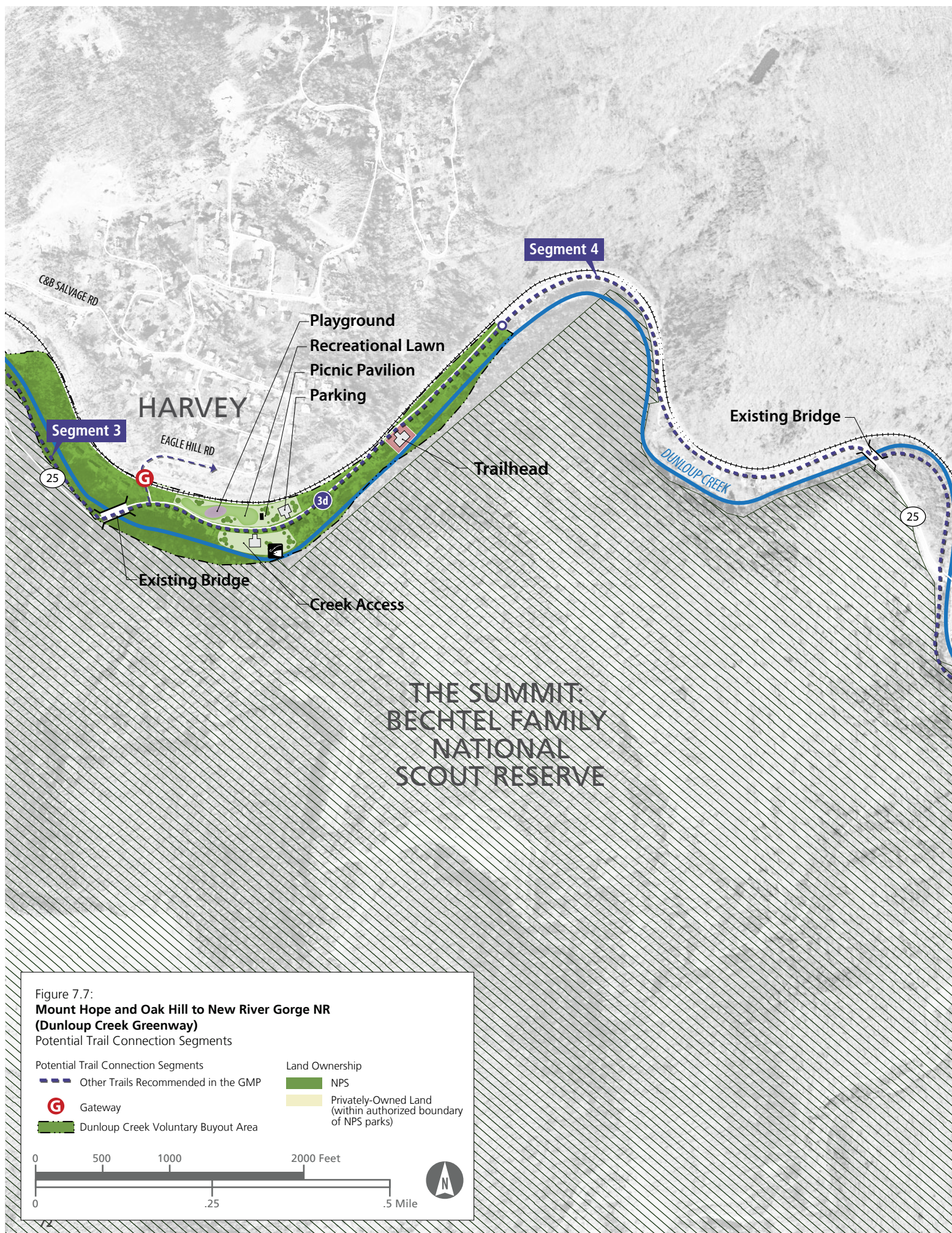
Dunloup Creek Voluntary Buyout Area

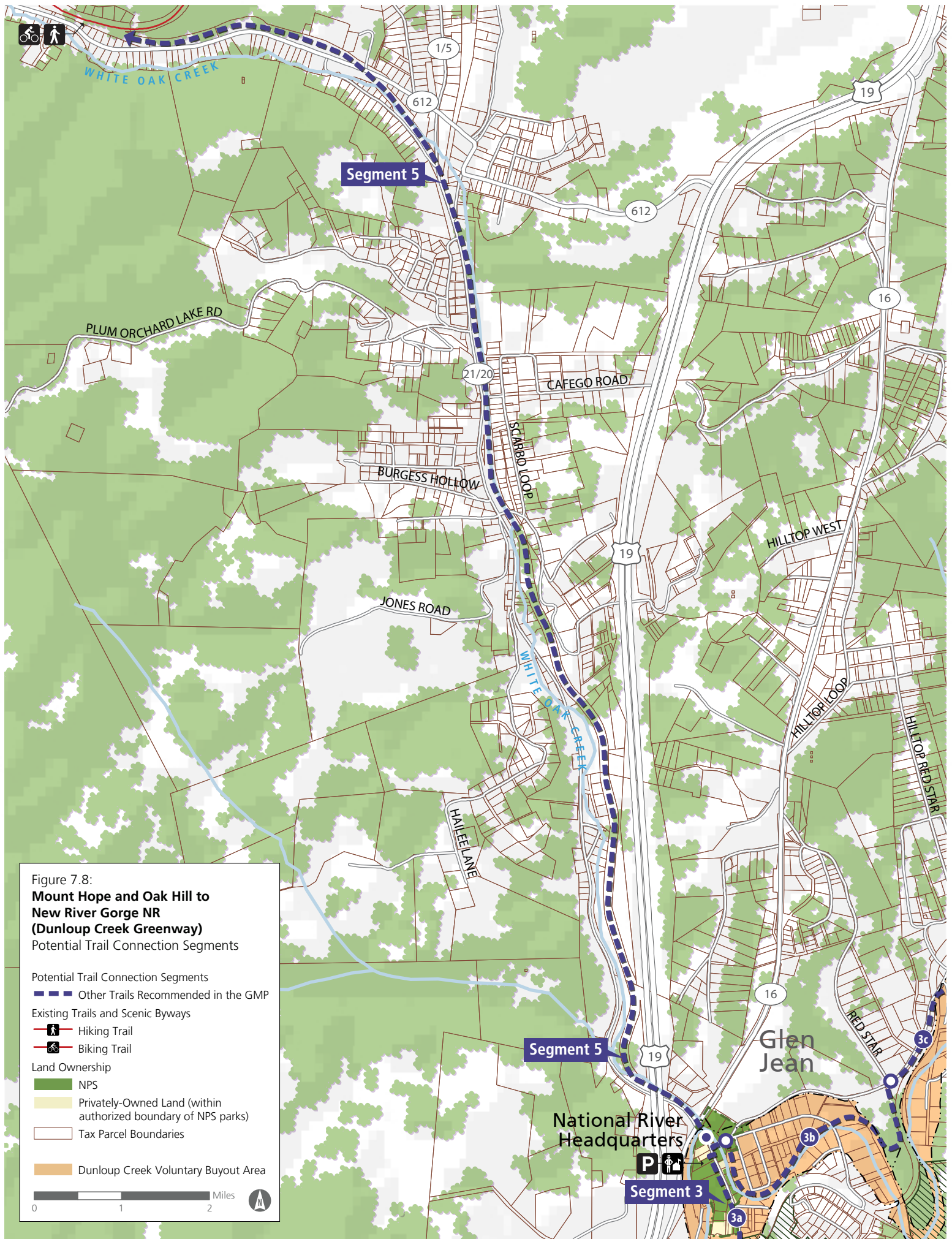
Land Ownership

NPS

Privately-Owned Land
 (within authorized boundary
 of NPS parks)









The potential connector trail connects visitors to opportunities for dining, shopping, and recreation in the town of Mount Hope.

7.4 POTENTIAL PARTNERS

Trail planning in this connection is in its early stages. The focus to date has been on the connection from the city of Mount Hope to New River Gorge NR where various potential trail partners are beginning to explore options for trail development along Dunloup Creek that take advantage of the federal buyout program. Those participating include the USDA Natural Resources and Conservation Service (NRCS), Fayette County, the city of Mount Hope, NPS, and the Boy Scouts of America (BSA). Section 7.3 above provides an illustrative concept for how a greenway encompassing the buyout lands could evolve. It is derived from very preliminary conversations with several trail partners.

NPS has also had some initial conversations with the town of Oak Hill regarding the potential for a trail connection from park headquarters in Glen Jean to the White Oak Rail-Trail via a former railroad right-of-way.

U.S.D.A., NATURAL RESOURCES AND CONSERVATION SERVICES

The federal Natural Resources and Conservation Service (NRCS) is currently purchasing land that is subject to recurring flooding along Dunloup Creek from Mount Hope to below Harvey. Once acquired from willing sellers NRCS is transferring title to property to Fayette County with the restriction that acquired land be perpetually limited to uses compatible with open floodplain land uses. At the time the property is transferred NRCS makes recommendations as to potential suitable future uses. Once the buyout is complete, use of the corridor for trail development would be suitable and possible provided a decision on interim use does not preclude the continuous connection needed for a trail. For these reasons NRCS is an important trail partner.

FAYETTE COUNTY

Fayette County is an important trail partner in the Mount Hope to New River Gorge NR because it will be the owner of the Dunloup Creek buyout lands. The county will be responsible for leasing the lands to tenants for appropriate uses. Further collaboration with Fayette County is needed to explore how the county plans to manage the buy-out lands and if there is interest in providing for a trail connection and greenway over the long-term as the buyout lands are acquired and reused. Important to this conversation will be exploration of alternative trail/greenway management strategies. Also important will be consideration of the potential need for additional land acquisition to supplement the buyout lands where critical trail/greenway links may be missing.

CITY OF MOUNT HOPE

The city of Mount Hope recognizes the potential benefits to the community that could result from a trail connection along Dunloup Creek from the city to New River Gorge NR. The city has expressed interest in working with Fayette County, the NPS, NRCS, and the BSA to explore options for the trail as part of a potential greenway that provides opportunities for a variety of recreation and community activities suitable within the floodplain.

NEW RIVER GORGE NATIONAL NR (NPS)

The NPS is an important trail planning partner in the Mount Hope to New River Gorge NR connection because park headquarters for the three national park units is located along Dunloup Creek in Glen Jean. Future planning for the trail and greenway will likely explore an option in which the trail passes through the NPS property.

BOY SCOUTS OF AMERICA

The Summit Bechtel Family National Scout Reserve adjoins the city of Mount Hope as well as Dunloup Creek from the city to New River Gorge National River on creek right. BSA has expressed interest in future planning, development, and management of the trail connection from Mount Hope along Dunloup Creek because of the opportunity it would provide for scouts to hike or bike directly from the Summit to the park. BSA could also offer volunteer assistance for construction of new trail within the corridor.



A service hub within the region, Oak Hill offer a range of shops, restaurants, and lodging options. The town also includes several outfitters and bike shops.

CITY OF OAK HILL (INCLUDING THE WHITE OAK RAIL-TRAIL COMMISSION)

In Oak Hill the city has been working for 13 years on the White Oak Rail-Trail. Today the trail extends for approximately 8 miles along the former Norfolk Southern right-of-way from Lochgelly Road to Whipple to Jones Avenue along WV Route 61 to Oak Hill Junction. It is the product of a successful collaboration among local residents, city officials, and Fayette County, coordinated by the White Oak Rail-Trail Commission – a commission created by the city to develop the rail-trail.

The trail is very popular with local residents who consider it an important asset in the community. City officials support the idea of exploring other trail development opportunities. Both the city and the White Oak Rail-Trail Commission are potential partners for further planning and development of the trail connection from White Oak to Glen Jean via the former railroad right-of-way in the White Oak Creek corridor (along WV Route 21/20).

7.5 CAPITAL COST ESTIMATE

Table 7.3 summarizes estimated order-of-magnitude costs (2012\$) for development of the connection from Oak Hill and Mount Hope to New River Gorge NR. The estimate is a conceptual (Class C) cost estimate based on square foot /linear foot or typical unit costs of similar construction. Table 2.1 above provides unit cost assumptions used to assemble the estimate.

Table 7.3: Mount Hope and Oak Hill to New River Gorge NR Connection (2012\$)

Description	Quantity	Unit	Cost/Unit		Total Cost	
			Low	High	Low	High
Multi-purpose trail						
Segment 1	2.4	mile	\$80,000	\$100,000	\$192,000	\$240,000
Segment 2c	3.8	mile	\$80,000	\$100,000	\$304,000	\$380,000
Segment 3b	0.6	mile	\$80,000	\$100,000	\$48,000	\$60,000
Segment 3d	1.4	mile	\$80,000	\$100,000	\$112,000	\$140,000
Segment 4	1	mile	\$80,000	\$100,000	\$80,000	\$100,000
sub-total multi-purpose trail					\$544,000	\$680,000
Rail-trail						
Segment 5	2.9	mile	\$80,000	\$100,000	\$232,000	\$290,000
sub-total rail-trail					\$232,000	\$290,000
Shared Roadway						
Segment 2a	0.2	mile		\$0		\$0
Segment 2b	0.2	mile		\$0		\$0
Segment 2d	0.1	mile		\$0		\$0
Segment 3a	0.4	mile		\$0		\$0
Segment 3c	0.2	mile		\$0		\$0
sub-total shared roadway						\$0
Trailhead						
Gravel Parking (10 spaces)	1	each		\$14,500		\$72,500
Vault Toilet	1	each		\$15,000		\$75,000
Bench	2	each		\$350		\$3,500
Picnic Tables	2	each		\$350		\$3,500
Kiosk	1	each		\$6,000		\$30,000
sub-total trailhead						\$184,500
Total Cost Mount Hope and Oak Hill to New River Gorge NR (Dunloup Creek Greenway) Connection					\$960,500	\$1,154,500

oak hill to fayetteville 8

Figure 8.1:
Oak Hill to Fayetteville
 Trail Connection Corridor Setting

Potential Trail Connection Segments

— Other Trails Recommended in the GMP

Existing Trails

— Hiking Trail

— Biking Trail

Visitor Facilities and Services

Trailhead

Restroom

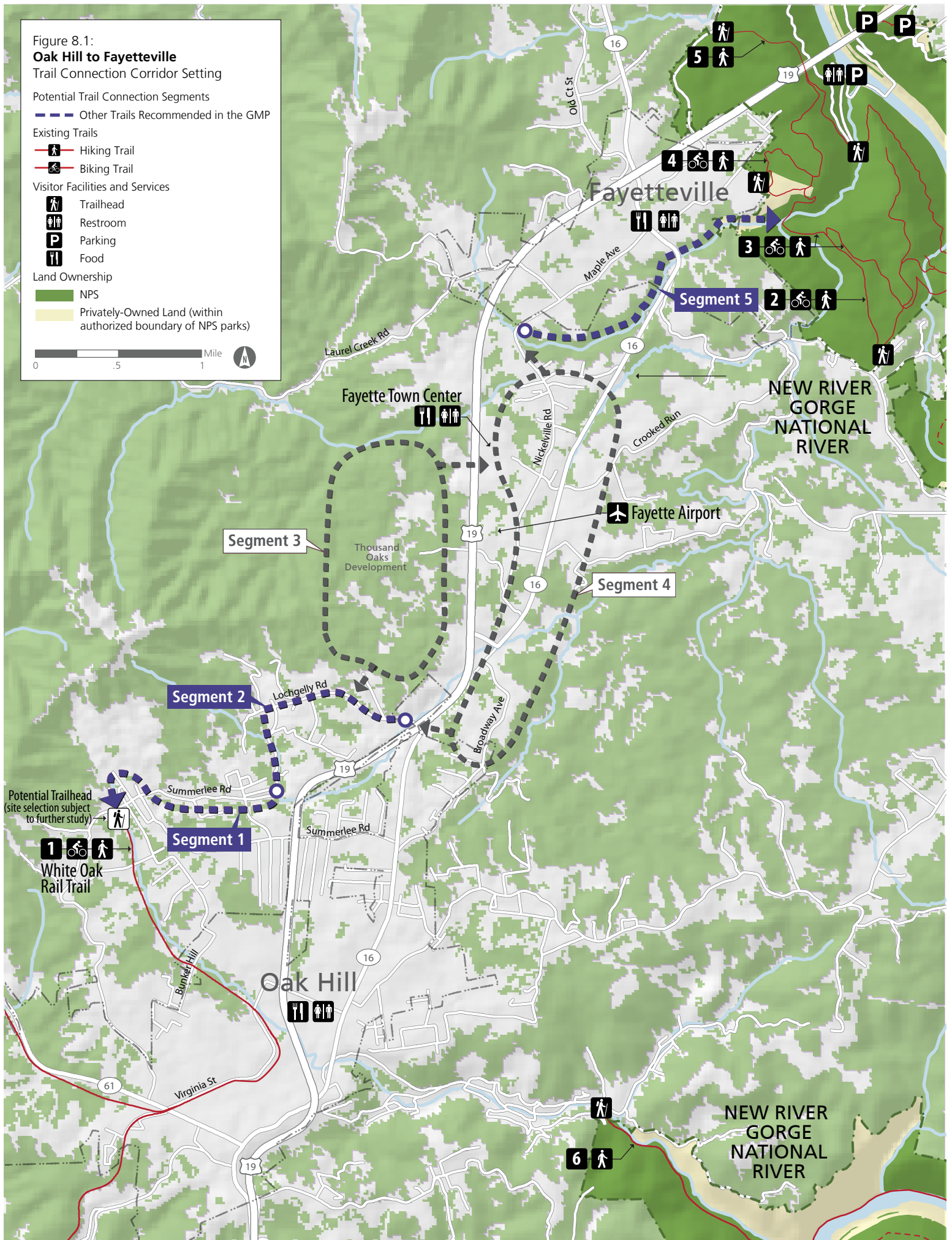
Parking

Food

Land Ownership

NPS

Privately-Owned Land (within authorized boundary of NPS parks)



oak hill to fayetteville 8



The potential connector trail connects visitors to the town of Fayetteville which offers visitors opportunities for recreation, shopping, dining, and lodging.

8.1 CONNECTION CORRIDOR

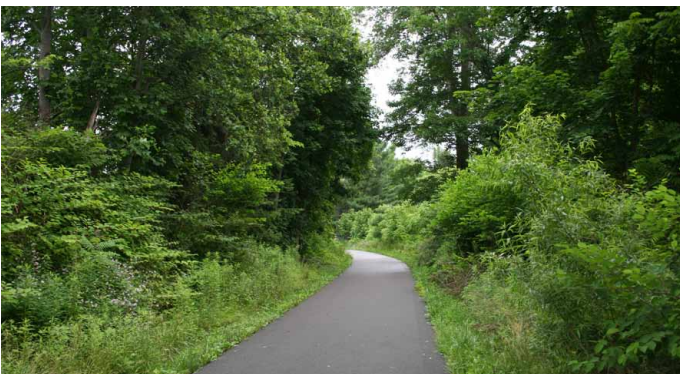
The Oak Hill to Fayetteville connection would provide a trail from Oak Hill to the park via Fayetteville. It would start at the end of the existing White Oak Rail-Trail in Oak Hill and end at the existing Fayetteville Trail in New River Gorge NR. Most of the corridor is privately-owned, characterized by a mix of residential and commercial development in the US Route 19 corridor.

8.1.1 Existing Trails

Trails adjacent to the Oak Hill to Fayetteville segment present a range of experiences. The existing trail network offers opportunities to connect the segment to communities, attractions and larger trail networks within the region. Table 8.1 describes the formalized trail network. The column titled "Map #" corresponds to trails illustrated on figure 8.1.

Table 8.1: Existing Trail Network

Map #	Trail	Length (mi)	Trail Typology	Use	
				Hike	Bike
1	White Oak Rail-Trail	7	Multi-Purpose	•	•
2	Timber Ridge Trail	1	Multi-Purpose	•	•
3	Fayetteville Trail	4	Multi-Purpose	•	•
4	Park Loop Trail	1	Multi-Purpose	•	•
5	Bridge Trail	.7	Hike	•	
6	Rend Trail	3	Hike	•	



Operated by the city of Oak Hill, the White Oak Rail-Trail is largely paved and provides hikers/bikers with an off-street connection to schools, parks, and neighborhoods along the trail.

8.1.2 Existing Attractions

Existing trail access and trail-related recreational amenities in the corridor include:

- **Oak Hill.** Oak Hill offers opportunities for dining, shopping and recreation.
- **Fayetteville.** Fayetteville offers opportunities for dining, shopping and recreation. Major attractions include the Historic Fayette Theatre, Fayetteville's Play-It-Ville and Skatepark, New River Bridge and Civil Wars sites found throughout the town.

8.1.3 Visitor Services and Amenities

Services and amenities in the connection corridor are available at:

- **Oak Hill.** Oak Hill serves as a service hub and offers a range of options for lodging, dining and shopping. Visitor information is available at the New River Convention and Visitors Bureau. Oak Hill also includes outfitters and bike shops.
- **Fayetteville.** Fayetteville offers various options for lodging, dining and shopping. The town also includes several outfitters and bike shops.

8.2 ONGOING TRAIL PLANNING

There are no ongoing trail planning activities in the Oak Hill to Fayetteville corridor.

8.3 POTENTIAL TRAIL CONNECTION ALIGNMENT

Figure 8.1 illustrates the potential trail connection identified by partners through the planning process. Table 8.2 corresponds to figure 8.1 and summarizes distances, planning status, existing trail classifications, land ownership, use, surface, features requiring special consideration, and future trail classifications.

The Oak Hill to Fayetteville connection is largely envisioned as a multi-purpose trail with segments following existing roadways and sidewalks. Connecting neighborhoods, businesses, schools, and parks, the network would serve three user groups: commuters, inter-trail hikers/bikers, and community members for exercise.

Segment 1 would extend from the existing White Oak Rail-Trail and follow an abandoned railroad right-of-way owned by the city of Oak Hill. Community groups and the White Oak Rail-Trail Commission have expressed support for the rail-trail's northern extension.

Extending from the rail-trail, segment 2 would follow an existing network of county roads to US Route 19. Lacking paved shoulders and sidewalks, segment 2 would require improvements to accommodate pedestrians and novice bicyclists. The segment of shared roadway would require coordination with the local WV Department of Transportation district to obtain encroachment permits and work with traffic engineers to determine signage, striping, and other improvements.

Between Oak Hill and Fayetteville, potential alignment options have yet to be identified. On figure 8.1, segments 3 and 4 illustrate generalized areas the connector trail may traverse. Conceptually, two options exist to the east and west of US Route 19. Both options require a connection across US Route 19:

- **West of US Route 19:** Illustrated as segment 3 on figure 8.1, the trail is conceptualized as a multi-purpose off-road path. Common areas owned by the Thousand Oaks Development Homeowners Association present an option for the potential trail alignment. Establishing a safe pedestrian crossing of US Route 19 would be one major challenge in identifying potential alignments for segment 3. The western option may require the construction of a new pedestrian bridge spanning the roadway near the intersection of Whitewater Ave and US Route 19.
- **East of Route 19:** Illustrated as segment 4 figure 8.1, the eastern segment is conceptualized as an on-street route utilizing the existing roadway/sidewalk network. Fragmented ownership and topography present challenges to identifying a potential alignment. Existing sidewalks and an on-street bike route may prove the only viable means for a connection east of US Route 19. A US Route 19 surface crossing would be possible at the elevated Lochgelly Road bridge. The bridge includes both a striped shoulder for bicycle traffic and sidewalk on the westbound lane for pedestrian use. The segment of shared roadway would require coordination with the local WV Department of Transportation district to obtain encroachment permits and work with traffic engineers to determine signage, striping, and other improvements.

Further investigation is required to identify potential alignments in segments 3 and 4 along with options for safely crossing US Route 19.

Just outside of Fayetteville, segment 5 would parallel House Creek and connect to New River Gorge NR. The multi-purpose trail would connect several schools and is conceptualized as an off-street route.

Table 8.2: Existing and Potential Trail Conditions

	Segment 1:	Segment 2:	Segment 3:	Segment 4:	Segment 5:
Distance	1.4 miles	1.4 miles			2.9 miles
Trail Status	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP	Other trails recommended in the GMP
Planning Status	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment identified based on aerials and tax maps, field verification required	Potential alignment not yet identified	Potential alignment not yet identified	Potential alignment identified based on aerials and tax maps, field verification required
Existing Trail Classification	Railroad grade	County roads	No existing trail	No existing trail	No existing trail
Land Ownership	City of Oak Hill	Various	Various	Various	Various
Use	None	County roads	None	None	None
Surface	Natural	Paved	Natural	Paved	Natural
Features Requiring Special Needs		<ul style="list-style-type: none"> • Coordination with WV Department of Transportation to obtain encroachment permits and determine signage, striping, and other improvements 	<ul style="list-style-type: none"> • Route 19 pedestrian crossing • Complicated land ownership 	<ul style="list-style-type: none"> • Route 19 pedestrian crossing • Steep topography 	
Future Trail Classification	Multi-purpose <ul style="list-style-type: none"> • 10-12' tread • hike and bike 	Shared roadway	Multi-purpose <ul style="list-style-type: none"> • hike and bike 	Shared roadway	Multi-purpose <ul style="list-style-type: none"> • hike and bike

8.4 POTENTIAL PARTNERS

Many residents of Oak Hill and Fayetteville have an interest in developing a trail connection from Oak Hill to Fayetteville. Several are collaborating to assess trail potential, to identify partners to help organize trail planning efforts, and to identify stakeholders. Possible partners include local bikers, the Fayette County Green Advisory Team, the city of Fayetteville, and Fayette County.

LOCAL BIKERS

Several members of the local biking community are collaborating to explore potential route alignments. The local bike shop is presently leading the effort.

FAYETTE COUNTY GREEN ADVISORY TEAM

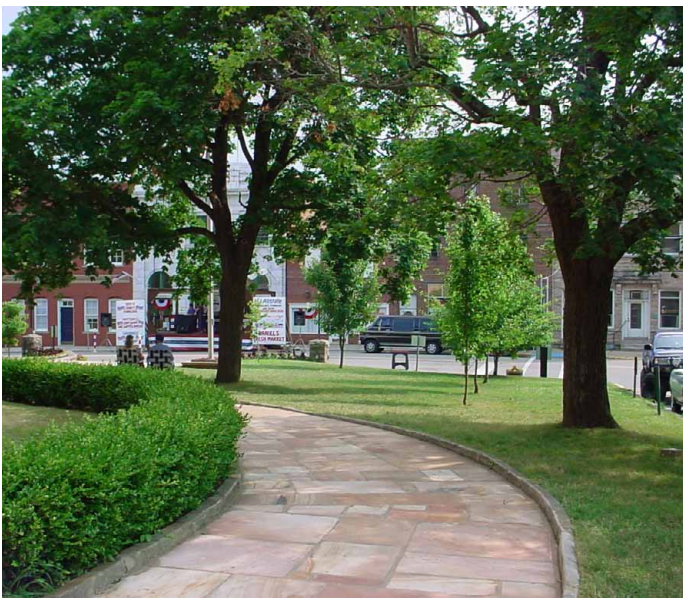
The Fayette County Green Advisory Team is committed to improving the environment in the home, school, community, workplace, and county. Members of the Green Advisory Team have expressed interest in developing the trail as a community resource that could link schools to the park and provide opportunities for exercise and environmental education.

CITY OF FAYETTEVILLE

The city of Fayetteville has not been involved to date in trail planning, development, and management within the corridor. The city could become more involved with the trail connection as work proceeds by other trail partners. Further consultation with the city is needed to assess its interest in participating as a partner, particularly with assessing its interest in holding trail easements or in owning the trail right-of-way where land is acquired in fee.

FAYETTE COUNTY

Fayette County has not been involved to date in trail planning, development, and management within the corridor. The county could become more involved with the trail connection as work proceeds by other trail partners. Further consultation with the county is needed to assess its interest in participating as a partner, particularly with respect to holding trail easements or in owning the trail right-of-way where land is acquired in fee.



Local shops, restaurants, and attractions found in the town of Fayetteville provide trail-related services in the connection corridor.

8.5 CAPITAL COST ESTIMATE

Table 8.3 summarizes estimated order-of-magnitude costs (2012\$) for development of the connection from Oak Hill to Fayetteville. The estimate is a conceptual (Class C) cost estimate based on square foot /linear foot or typical unit costs of similar construction. Table 2.1 above provides unit cost assumptions used to assemble the estimate.

Table 7.3: Oak Hill to Fayetteville Connection (2012\$)

Description	Quantity	Unit	Cost/Unit		Total Cost	
			Low	High	Low	High
8' Multi-purpose trail						
Segment 3		mile	\$80,000	\$100,000	\$0	\$0
Segment 5	2.6	mile	\$80,000	\$100,000	\$208,000	\$260,000
sub-total multi-purpose trail					\$208,000	\$260,000
8' Rail-trail						
Segment 1	1.4	mile	\$80,000	\$100,000	\$112,000	\$140,000
sub-total rail-trail					\$112,000	\$140,000
Shared Roadway						
Segment 2	2	mile	\$0		\$0	
sub-total shared roadway					\$0	
Trailhead						
Gravel Parking (10 spaces)	1	each	\$14,500		\$14,500	
Vault Toilet	1	each	\$15,000		\$15,000	
Bench	2	each	\$350		\$700	
Picnic Tables	2	each	\$350		\$700	
Kiosk	1	each	\$6,000		\$6,000	
sub-total trailhead					\$36,900	
Total Cost Oak Hill to Fayetteville Connection					\$356,900	\$436,900

design guidelines 9

design guidelines

9

The following provides information related to design guidelines for on-street and off-street trails and related trail amenities. The potential trail network will offer diverse experiences and accommodate a range of users. The described facilities represent a range of applicable trail typologies recommended for the potential trail network.

The guidelines for these facilities were developed based on design standards established in the following resources.

Federal

American Association of State Highway Transportation Officials (AASHTO)

2010 Draft AASHTO guide for the development of bicycle facilities. American Association of State Highway Transportation Officials, Washington, DC.

U.S. Department of Agriculture (USDA)

2007 Equestrian design guidebook for trails, trailheads, and campgrounds. U.S. Department of Agriculture, Missoula, MT.

U.S. Department of the Interior, National Park Service

2011 Environmental assessment – design and build two stacked loop hiking and biking trail systems, develop three trails on existing roads, analyze bike use on park trails. National Park Service, Glen Jean, WV.

2007b Guide to sustainable mountain trails - trail assessment, planning & design sketchbook. National Park Service, Fort Collins, CO.

U.S. Access Board

1999 Regulatory negotiation committee on accessibility guidelines for outdoor developed areas final report. United States Access Board, Washington, DC.

State

West Virginia

2001 Bicycle/pedestrian accommodation. West Virginia Department of Transportation, Division of Highways, Charleston, WV.

Other

Rails-to-Trails Conservancy

2012 <http://www.railstotrails.org/ourwork/trailbuilding/toolbox/index.html>.

9.1 SUSTAINABLE TRAILS

Sustainable trails minimize trail use impacts on the environment, require minimal maintenance, provide desired user experiences, and manage visitor conflicts. Trails designed and constructed to manage physical and social impacts of multiple user groups are the most sustainable. The following ten principles outline guidelines identified in the New River Gorge Stacked Loop Hiking and Biking Trail EA for sustainable trail design and construction (NPS 2011).

Trail Location. The most sustainable trails are located along sidehills, which makes water drainage easier than it is for trails located on flat ground. By design, trails on sidehills prevent trail tread widening by keeping users on the trail.

Trail Alignment. Sustainable trails follow contours rather than directly ascend hillsides. A trail following the shortest route up a hill is called a fall-line trail. Fall-line trails act as swales diverting water along the trail, which causes erosion. A trail following contours allows for sheet runoff of water, which causes considerably less erosion.

The Half Rule. At almost no time should the grade of the trail exceed half of the grade of the sidehill on which it is located. When the trail grade is greater than this figure, the easiest path for water to follow will be along the trail tread, causing gullies, rather than running off the side of the trail tread in a more diffuse sheet. Exceptions to the half rule occur, particularly when soils in the location of the trail are prone to erosion, in which case the maximum sustainable trail grade may be considerably less than half of the grade of the sidehill. Also, except in rare situations, the grade of a trail should never exceed 15 percent.

Sustainable Grade. For an entire uphill section of trail, the overall average grade of the trail should generally be ten percent or less. This number can fluctuate somewhat, depending on local conditions and needs, but applying this limitation to trail grade can slow both water and trail users, thereby decreasing the impacts of erosion and the potential for trail user conflicts, as well as increasing trail user safety.

Grade Reversals. A grade reversal, also known as a grade dip or drainage dip, is a brief change in elevation where the trail drops subtly before rising again. Frequent grade

reversals create miniature watersheds along the trail that encourage water to exit the trail at low points before it can gain speed and momentum, thereby causing erosion. These small watersheds also mean that problems on one part of the trail are unlikely to affect any other part of the trail. Grade reversals also make a trail more interesting to trail users, breaking up long uphill climbs, slowing long descents and providing variety and fun elements, like whoop-de-dos.

Outslope. Sustainable trails should be built, as much as possible, with a slight tilt (about five percent) of the trail tread toward the low side of the trail. This ensures that water runs in diffuse sheets off the trail and down the sidehill. Where outslope is difficult to maintain (often due to loose soils) or intentionally constructed otherwise (such as with banked turns, which are insloped), frequent grade reversals become more critical in order to prevent water from flowing long distances along the trail.

Adaptation to Soil Texture. Sustainable trails are designed with the local soils in mind. Develop the trail and its features based on the soils' qualities of drainage, cohesion and durability.

Minimization of User-Caused Soil Displacement. Soil shifts on any trail from use, but can be more substantially displaced in poorly-designed sections of trail, such as abrupt corners and sharp hills where trail users are making fast adjustments in speed and force. Designing a trail with consistent flow that prepares trail users for what is ahead of them, insloped turns that help trail users to maintain their speed and stay on the trail tread, and tread hardening where a trail might be especially susceptible to damage will all minimize soil displacement. Additionally, these features provide for a more fun and safe trail experience while keeping users within the intended trail tread.

Prevention of User-Created Trails. Sustainable trails provide a more desirable user experience than user-created routes or traveling off-trail. Such trails have a stable and predictable surface, stay away from areas in need of protection, go to appealing destinations and provide a sought-after experience.

Maintenance. Sustainable trails require considerably less maintenance than trails that are not designed following sustainable design principles. However, they do require some maintenance, the goals of which remain the same as the initial design and construction: keep users on the trail, move water off of it.

9.2 HIKE/BIKE TRAIL DESIGN GUIDELINES

9.2.2 Multi-Purpose Trail

Multi-purpose trails accommodate two-way bicycle, pedestrian, and other non-motorized users. These trails are frequently used for both recreational and off-road transportation purposes. The trails are physically separated from motorized traffic by a physical barrier or open space.

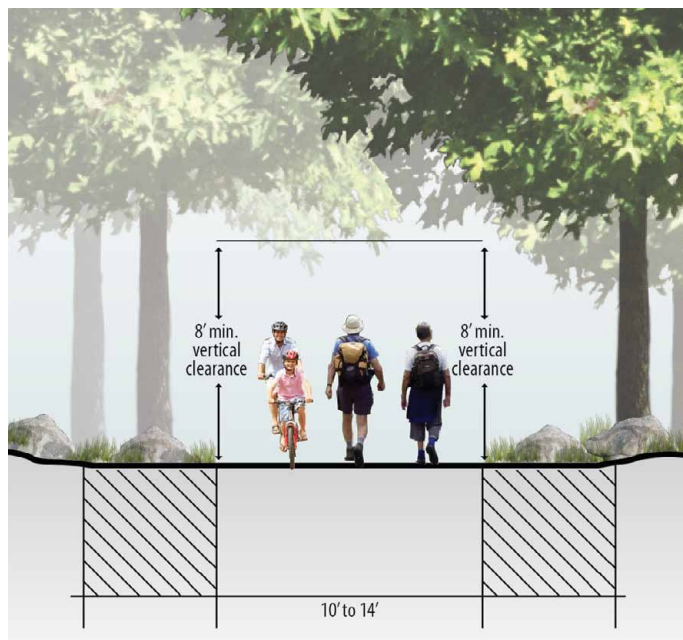


Figure 9.1: Multi-Purpose Trail

AASHTO DRAFT GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES

- **Width:** The appropriate width for a shared use path is dependent on the context, volume, and mix of users.
 - minimum width for a two-directional shared use path is 8' (minimum width is appropriate in areas where bicycle and pedestrian traffic will be low)
 - widths range from 8 – 14' with the wider values applicable to areas with high use and/or a wider variety of user groups
- **Vertical Clearance:**
 - minimum 8'
 - minimum 10' needed for overpasses and tunnels
 - minimum 10' for trails with equestrian use
- **Buffer**
 - minimum 5' vegetated or landscape buffer between road and trail
 - if 5' is not possible, a minimum 42" safety barrier should be provided

- **Grade:**
 - less than 3% (typical for old railroad beds)
 - up to 5% is acceptable
- **Surface:** The appropriate surface is dependent on considerations such as accessibility, construction costs, maintenance costs, life expectancy, and availability of materials.
 - **Hard Surface:** Hard surface trails (asphalt, concrete, crushed stone, etc) are more expensive upfront but require less maintenance and accommodate a wider range of users. Hard surfaces are preferred in areas with high traffic and areas prone to occasional flooding or drainage issues.
 - **Soft Surface:** Soft surface trails (natural earth, wood chips, etc) are less expensive upfront but require more maintenance under heavy use and are susceptible to varying weather conditions. Soft surfaces are appropriate in rural areas where the path primarily serves recreational purposes.

CASE STUDY

Multi-Purpose Trails with ATV Use: Hatfield-McCoy Trail System

Composed of over 500 miles of off-road trails in five counties, the Hatfield-McCoy Trail System is a multi-use trail open to ATV, UATV, motorbikes, hikers, bikers, and horseback riders. Permits are required for ATV use. The following policies have been implemented to create a network of trails safe for all user groups:

- **Width:** The trails are a minimum of 72" wide but are typically built over 80" wide. The additional width allows adequate space for ATVs to safely pass pedestrians and cyclists.
- **Right-of-way:** On the trails, ATV use is primary and all other uses are secondary. ATVs have the right-of-way along the trail as it is more difficult for ATVs to stop and start and maneuver around other user groups. All other users are required to move aside and allow ATVs to pass.
- **Speed:** Where there are stretches of straight trail over 200', natural obstacles or staggered water breaks are used to slow ATVs. Switchbacks are also implemented to slow ATVs as they ascend and descend steep terrain.

9.2.2 Rail-Trail

Rail-trails are typically multi-purpose trails accommodating two-way non-motorized uses. The trails are the result of converting abandoned rail rights-of-way to pathways. Following abandoned rail, rail-trails generally follow gentle grades of less than 3 percent.

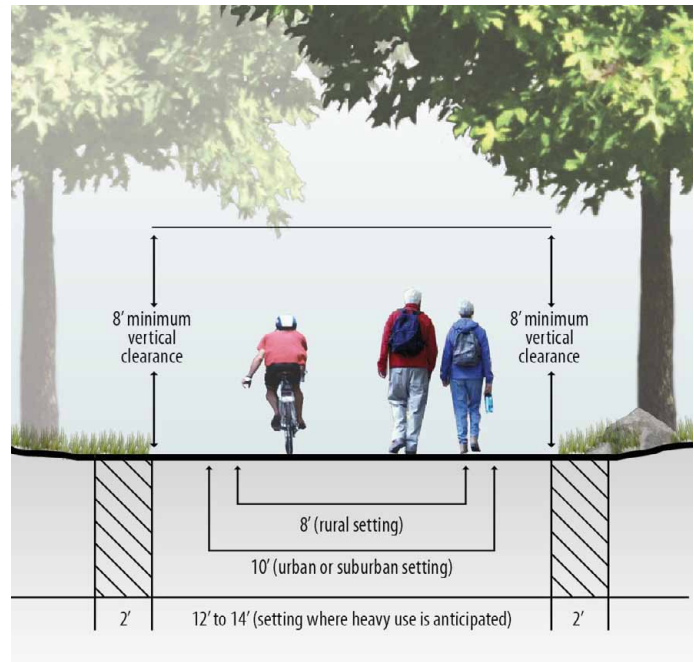


Figure 9.2: Rail-Trail

RAILS-TO-TRAILS CONSERVANCY TRAIL-BUILDING TOOLBOX

- **Width:** The appropriate width is dependent on the context, volume and mix of users.
 - minimum width in a rural setting is 8'
 - minimum width in an urban or suburban setting is 10'
 - minimum width in areas where heavy use is anticipated is 12' to 14'
- **Vertical Clearance:**
 - minimum 8'
 - minimum 10' needed for overpasses and tunnels
- **Shoulder**
 - single shoulders should be a minimum of 5' wide
 - dual shoulders (one on each side) should be a minimum of 2' to 2.5' wide
- **Grade:**
 - less than 3 percent (typical for old railroad beds)
 - up to 5 percent is acceptable
- **Surface:** The appropriate surface is dependent on considerations such as accessibility, construction costs, maintenance costs, life expectancy, and availability of materials.
 - **Hard Surface:** Hard surface trails (asphalt, concrete,

crushed stone, etc) are more expensive upfront but require less maintenance and accommodate a wider range of users.

- Soft Surface: Soft surface trails (natural earth, wood chips, etc) are less expensive upfront but require more maintenance under heavy use and are susceptible to varying weather conditions.

9.2.3 Single Track Trail

Single track trails are narrow and require users to travel in single file. Single track trails can be single use (hiking, biking, ATV, or equestrian only) or multi-purpose trails. Along single track trails, users must yield to allow others to pass. Single track trails are typically natural surfaces.



Figure 9.3: Single Track Trail

NPS GUIDE TO SUSTAINABLE MOUNTAIN TRAILS - TRAIL ASSESSMENT, PLANNING & DESIGN SKETCHBOOK

The following chart comes from the Guide to Sustainable Mountain Trails - Trail Assessment, Planning & Design Sketchbook (NPS 2007b). The guide generically classifies single track trails as frontcountry, middlecountry, and backcountry. Generally, frontcountry trails are 3 to 5 miles in length from the trailhead, middlecountry are 3 to 5 to 7 miles from the trail head; backcountry trails are over 7 miles in length from the trailhead.

Mountain Trails	Optimum Trail Profile Grade	Tread Width
Frontcountry	0% - 8%	24" - 60"
Middlecountry	0% - 12%	24" - 48"
Backcountry	0% - 12%	24" - 36"
Climber/Forest	0% - 12%	18"

9.2.4 Equestrian Trail

Equestrian trails can be single use (1.5' to 8' wide) or non-motorized multi-purpose trails (5' to 12' wide). Equestrian trails should include a buffer and overhead clearance so that horses feel at ease and are provided with adequate space to allow others to pass. Equestrian trails are typically solid natural surfaces.

USDA EQUESTRIAN DESIGN GUIDEBOOK FOR TRAILS, TRAILHEADS, AND CAMPGROUNDS

The following chart describes recommended widths, clearances, and slopes for single track equestrian trails.

Element	Low (rural) Development	Moderate Development	High Development
Tread	1.5' to 2'	3' to 6'	8' to 12'
Clearing width (horizontal)	5.5' to 8' (tread with 2' to 3' buffer)	9' to 12' (tread with 2' to 3' buffer)	14' to 18' (tread with 2' to 3' buffer)
Overhead clearance (vertical)	10'	10' to 12'	10' to 12'
Slope	5-10%	5%	2 to 5%

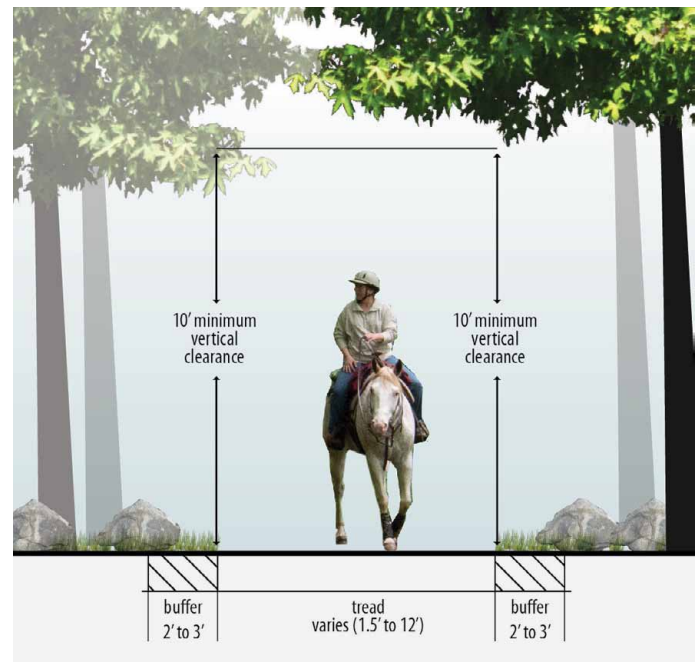


Figure 9.4: Single Track Equestrian Trail

9.2.5 ADA Compliant Trail

Where feasible, trails should be designed according to ADA standards. Guidelines for ADA compliant trails note that the natural environment may restrict the possibility of constructing ADA compliant trails.

- **Width:** The clear tread width should be a minimum of 36".
- **Surface:** The trail surface should be firm and stable.
- **Slope:** No more than 30 percent of the total trail length should exceed a running slope of 1:12. The running slope of trail segments should comply with one or more of the following:
 - Running slope should be 1:20 or less for any distance.
 - Running slope should be 1:12 maximum for 200' maximum. Resting intervals should be provided at distances no greater than 200' apart.
 - Running slope should be 1:10 maximum for 30' maximum. Resting intervals should be provided at distances no greater than 30' apart.
 - Running slope should be 1:8 maximum for 10' maximum. Resting should be provided at distances no greater than 10' apart.
- **Cross Slope:** The cross slope should not exceed 1:20 maximum.
- **Passing Space.** Where the clear tread width of the trail is less than 60", passing spaces should be provided at intervals of 1,000' maximum. Passing spaces should be a minimum of a 60" by 60" or an intersection of two walking surfaces which provide a T-shaped space.

9.3 ON-STREET BIKE TRAIL DESIGN GUIDELINES

9.3.2 Shared Roadway

Shared roadways (figure 9.5) typically occur on roads with low speeds and traffic volumes where separated bikeways are not feasible due to space constraints. On these roadways, bicyclists share facilities with motor vehicles. Shared roadways are designated exclusively by signage and include no bicycle facilities. Shared roadways are best suited for experienced cyclists and are typically used by commuters and distance riders.

AASHTO DRAFT GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES

- **Width:**
 - roadways without designated bike lanes or shoulders: recommended minimum 14' width (minimum of 12' of useable lane)
- **Route Marking**
 - bright "Share the Road" signs to alert motorists that they may encounter bicyclists along the route

9.3.2 Shoulder Bikeway

Located on roadways with adequate space for bikeways, shoulder bikeways (figure 9.6) are designated by striping, signage, and pavement markings for the exclusive use of bicyclists. Shoulder bikeways are well suited for average to confident cyclists and are best used on rural highways.

WEST VIRGINIA BICYCLE/PEDESTRIAN ACCOMMODATION

- **Width:**
 - minimum width of right shoulder (non-structure):
 - without rumble strip – 5'
 - with rumble strip – 6'6"
- **Route Marking**
 - Designed for one-way operation, signage should be placed to encourage cyclists to utilize the right shoulder and use exit and entrance ramp shoulders.
- **Other Design Considerations**
 - Rumble strips should be discontinued in right shoulder taper areas.
 - Drainage grates should be perpendicular to the travel paths of bicycles.
 - Bridge expansion joints should be bicycle safe on the right shoulder (no exposed finger dams).

9.3.3 Bike Lane

Bike lanes (figure 9.7) are portions of the roadway designated exclusively for bicycle use by striping, signage, and pavement markings. Bike lanes are typically implemented on roadways with high traffic volumes and speeds. Bike lanes are well suited for novice to confident cyclists.

AASHTO DRAFT GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES

- **Width:**
 - 5' from the face of a curb or guardrail to the bike lane stripe
 - 4' minimum for roadways with no curb and gutter
 - On roadways with high volume on street parking, an additional 1' to 2' of width is desirable.
- **Placement:**
 - Bike lanes should be one-way facilities carrying bike traffic in the same direction as adjacent traffic.
- **Route Marking**
 - The lane should be delineated from vehicle travel lane with a six-inch solid white line.

Figure 9.5:
Shared Roadway

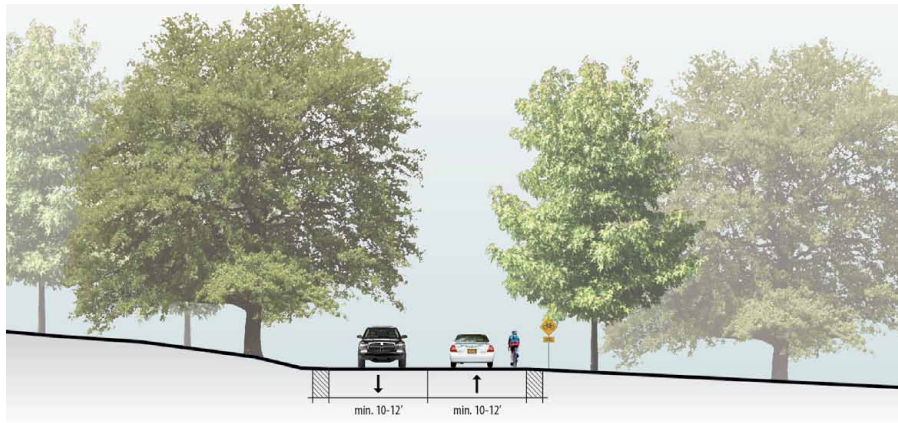


Figure 9.6:
Shoulder Bikeway

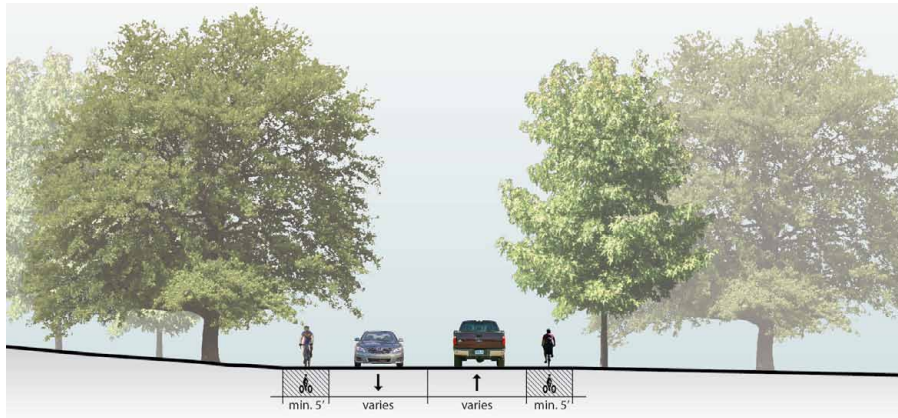


Figure 9.7:
Bike Lane

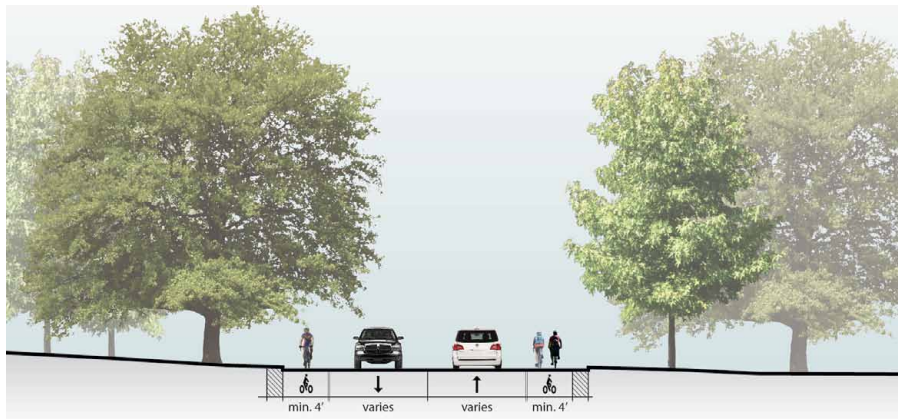
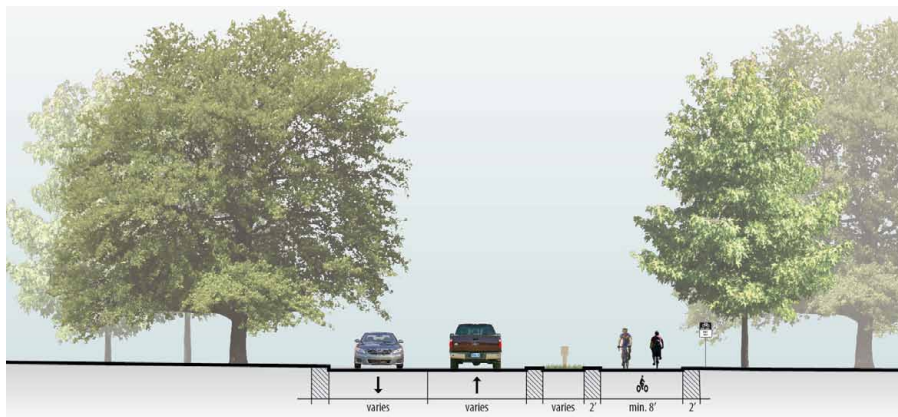


Figure 9.8:
Bike Path



9.3.3 Bike Path

Located parallel to roadways, bike paths (Figure 9.8) are separate facilities designed exclusively for non-motorized two-way operation. Bike paths are typically implemented on roadways with high traffic volumes and speeds. Bike paths are well suited for novice to confident cyclists.

WEST VIRGINIA BICYCLE/PEDESTRIAN ACCOMMODATION

- **Width:**
 - minimum: 8' with 2' graded shoulders
 - preferred: 10' with 2' graded shoulders
- **Other Design Considerations**
 - Facilities must be at least 5' from the edge of the parallel roadway's shoulder or separated by a 4'6" high combination of railings, fence, or barrier.

9.4 TRAILHEADS

Trailheads are designated public access points where users may enter and orient themselves to the trail network. Major trailheads typically include amenities such as parking, restrooms, signage, seating, and trash receptacles. Minor trailheads provide a subset of those amenities. Trailhead signs may simply identify the name of the trail or provide additional information such as a map, "You Are Here" locator, and trail rules.

9.5 WAYFINDING

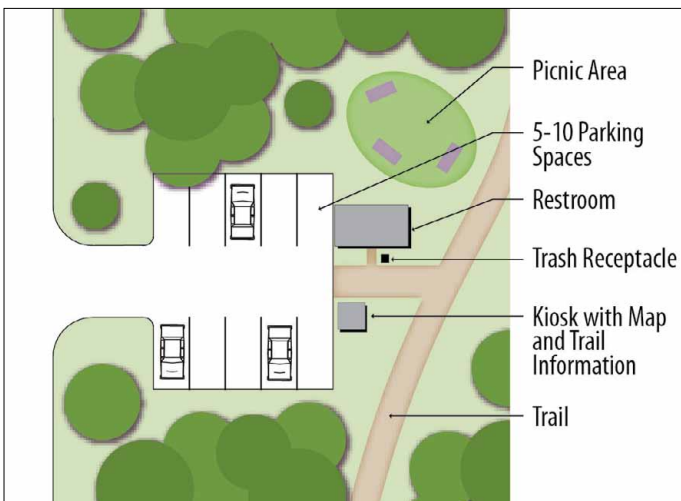
Wayfinding systems lend to the navigability of a trail network and convey a range of trail-related information clearly and consistently throughout a trail or network. Wayfinding systems typically include kiosks, identification markers, navigational markers, and interpretive signs. Where possible, signs should be consolidated to avoid confusion and clutter. The graphic identity of signs should include consistent themes, colors, fonts, and branding.

TRAIL KIOSKS

Kiosks are typically located at trailheads and orient users to the trail network. They often include a map and information related to distances, trail conditions, interpretation, connections to other trail networks, and regulatory and safety information. Kiosks are particularly helpful at highly used trailheads.

TRAIL IDENTIFICATION MARKERS

Trail identification markers are located at trail access points and typically include the name of the trailhead or access point, mile marker, and permitted user groups (hiker, biker, ATV, etc.).



Prototypical Major Trailhead

Major trailheads typically include amenities such as parking, restrooms, and wayfinding signage introducing users to the trail network.



Lehigh Gorge Rail-Trail Wayfinding

The Lehigh Gorge Rail-Trail wayfinding system offers direction and distances to attractions along with interpretive panels describing the trail's history and attractions.

SECONDARY TRAIL IDENTIFICATION MARKERS

Secondary trail identification markers are placed at regular intervals along the trail and assure users they are continuing along the correct route. The markers may be a sign with the trail name or blaze corresponding to the trail color.

DIRECTIONAL MARKERS

Directional markers are located at decision points (places where the trail intersects a roadway or other trail network) to direct users to trails or adjacent attractions or amenities. Directional markers often include distances and global coordinates and are commonly in the form of a post with sign, medallion, bollard, or engraved stone.

INTERPRETIVE SIGNS

Interpretive signs are located at key sites along the trail and provide information related to cultural or natural resources. Interpretive signs also help to establish stewardship along the trail.

9.6 TRAIL AMENITIES

Trail amenities make trails inviting to users and enhance the user experience. Amenities should be designed and sited as to not restrict trail access.

BENCHES

Benches located at key rest areas encourage a wider user group to use the trail by ensuring there are places to rest along the trail.

RESTROOMS

Restrooms are typically sited at trailheads or adjacent public facilities along the trail network.

DRINKING WATER

Drinking water is often sited at destinations such as trailheads, parks, and adjacent public facilities.

BICYCLE PARKING

Bicycle parking enables trail users to safely store their bicycles and access pedestrian-only areas.

TRASH RECEPTACLES

Trash receptacles are typically sited at trailheads and adjacent public facilities along the trail network where maintenance funds are available to meet trash removal needs.



Great Allegheny Passage Benches

Benches sited along the Great Allegheny Passage provide places to rest and are designed to provide shade and shelter along the trail.

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National Coal Heritage Area Authority

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Rails-to-Trails Conservancy

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RSMeans Engineering Department

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U.S. Access Board

- 1999 Regulatory negotiation committee on accessibility guidelines for outdoor developed areas final report. United States Access Board, Washington, DC.

U.S. Department of Agriculture (USDA)

- 2007 Equestrian design guidebook for trails, trailheads, and campgrounds. U.S. Department of Agriculture, Missoula, MT.

U.S. Department of the Interior, National Park Service

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- 2009a Draft general management plan/environmental impact statement for New River Gorge National River. National Park Service, Glen Jean, WV.
- 2009b Foundation for planning – New River Gorge National River. National Park Service, Glen Jean, WV.

- 2007a 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.
- 2007b Guide to sustainable mountain trails - trail assessment, planning & design sketchbook. National Park Service, Fort Collins, CO.
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- 1996a General management plan/final environmental impact statement/land protection plan – Gauley River National Recreation Area (volumes one and two). National Park Service, Glen Jean, WV.

Virginia

- 2012 Community trail development guide. Virginia Department of Transportation, Richmond, VA.

West Virginia

- 2012 Telephone conversation from Kelly Ream, landscape designer, to William Robinson, program coordinator, West Virginia State Trails Program, November 20, 2012, regarding cost estimates and design guidelines.
- 2007 Final watershed plan - final environmental impact statement for the Dunloup Creek watershed. West Virginia State Conservation Committee.
- 2002 Pathways to the future: the West Virginia statewide trail plan 2002 – 2010. West Virginia Trail Plan Committee, Charleston, WV.
- 2001 Bicycle/pedestrian accommodation. West Virginia Department of Transportation, Division of Highways, Charleston, WV.

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appendix a

resources

GENERAL REFERENCES

AMERICAN TRAILS

Redding, CA
530.547.2060
<http://www.americantrails.org/>

INTERNATIONAL MOUNTAIN BICYCLING ASSOCIATION (IMBA)

Boulder, CO
888.442.4622
<http://www.imba.com/>

RAILS-TO-TRAILS CONSERVANCY

Washington, DC
202.331.9696
www.railstotrails.org

TRAIL PLANNING

COMMUNITY TRAIL DEVELOPMENT GUIDE

Virginia Department of Transportation
Richmond, VA
800.367.7623
http://www.virginiadot.org/programs/bicycling_and_walking/trail_development_guide.asp

GUIDE TO SUSTAINABLE MOUNTAIN TRAILS: TRAIL ASSESSMENT, PLANNING & DESIGN SKETCHBOOK

National Park Service
<http://www.nps.gov/dsc/trails.htm>

PLANNING TRAILS AND GREENWAYS

American Trails
Redding, CA
530.547.2060
<http://www.americantrails.org/resources/planning/index.html>

PLAN, DESIGN, AND BUILD

Rails-To-Trails Conservancy
Washington, DC
202.331.9696
www.railstotrails.org

SUSTAINABLE TRAILS

National Park Service
<http://www.nps.gov/dsc/trails.htm>

TRAILBUILDING

Professional Trailbuilders¹

ALPINE TRAILS, LLC

Troy Duffin
Park City, UT
435.655.0779
www.alpine-trails.com

ARROWHEAD TRAILS, INC.

Tony and Danna Boone
Salida, CO
719.539.2817
www.arrowheadtrails.com

CONCEPT CONSTRUCTION

Art Tuftee
Seattle, WA
206.675.8429
arttuftee@aol.com

IMBA TRAIL SOLUTIONS

Boulder, CO
303.545.9011
www.imba.com

JIM JACOBSEN

Forest Knolls, CA
415.488.1665
btcjim@aol.com

LONG CANE TRAILS, LLC

Bill Victor and Michael Burton
Clarks Hill, SC
803.278.6177
wmvic32@aol.com

TALON TRAILS

DeWayne Buratti
Austin, TX
512.797.7433
duratti@grandecom.net

TRAIL DESIGN SPECIALISTS

Mike and Jan Ritter
Conyers, GA
678.410.8021
www.traildesign.com

TRAIL DYNAMICS, LLC

Woody Keen and Ed Sutton
Cedar Mountain, NC
828.862.5613
www.traildynamics.com

TRAIL SOURCE, LLC

Tim Wegner and Dale Gundberg
Minneapolis, MN
www.trailsource.net

TRAILWORKS TRAILBUILDING SERVICES

Lorien Arnold
Victoria, BC
www.trailworks.ca

Design Guidelines

DRAFT AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, 2010.

American Association of State Highway Transportation Officials.
http://safety.fhwa.dot.gov/ped_bike/docs/b_aashtobik.pdf

GUIDE TO SUSTAINABLE MOUNTAIN TRAILS: TRAIL ASSESSMENT, PLANNING & DESIGN SKETCHBOOK

National Park Service
<http://www.nps.gov/dsc/trails.htm>

PLAN, DESIGN, AND BUILD

Rails-To-Trails Conservancy
Washington, DC
202.331.9696
www.railstotrails.org

REGULATORY NEGOTIATION COMMITTEE ON ACCESSIBILITY GUIDELINES FOR OUTDOOR DEVELOPED AREAS FINAL REPORT, 1999

United States Access Board
<http://www.access-board.gov/outdoor/outdoor-rec-rpt.htm>

Hand Tool Sources¹

A.M. LEONARD
241 Fox Drive
Piquoa, OH 45356
800.543.8955
www.amleonard.com

BEN MEADOWS COMPANY

PO Box 5277
Janeville, WI 53547
800.241.6401
www.benmeadows.com

BOB TRAILERS, INC.

3641 Sacramento Dr. #3
San Luis Obispo, CA 93401
800.894.2447
www.bobtrailers.com

COUNTRY HOME PRODUCTS

PO Box 25
Vergennes, VT 05491
800.687.6575
www.countryhomeproducts.com

FORESTRY SUPPLIERS, INC.

PO Box 8397
Jackson, MS 39284
800.647.5368
www.forestry-suppliers.com

FOREST TOOL COMPANY

PO Box 768
Mendocina, CA 95460
707.937.2141
www.marxax.com

SHERRILL, INC.

200 East Seneca Road
Greensboro, NC 27406
800.525.8873
www.wtsherrill.com

TRAIL SERVICES

15 Westwood Road
Bangor, ME 04401
www.trailservices.com

WILDFIRE FIRE EQUIPMENT, INC.

www.wildfire-equipment.com

Bridge Sources¹

ECHO BRIDGE, INC.
888.327.4343
www.echobridge.com

NATURTEC

909.793.4501
www.naturtec.com

PERMAPOST PRODUCTS COMPANY

800.828.0222
www.permapost.com

Sign and Trail Marker Sources¹

CARSONITE COMPOSITES
Early Branch, South Carolina
800.648.7974
www.carsonite.com

ENVIROSIGNS

North Canton, OH
888.492.5377
www.envirosigns.com

INTER-MTN. ENTERPRISES

Kelowna, B.C. Canada
866.491.3311
www.inter-mtn.com

PANNIER GRAPHICS

Gibsonia, PA
800.544.8428
www. panniergraphics.com

THE PLASTIC LUMBER COMPANY

Akron, OH
330.762.8989
www.plasticlumber.com

RHINO MARKING AND PROTECTION SYSTEMS

www.rhinomarkers.com

ROCKART

Mesa, Arizona
877.718.7446
www.rockartsigns.com

SCENIC SIGNS AND SCREEN PRINTING

Wausau, Wisconsin
800.388.4811
www.scenic signs.com

VOSS SIGNS

Manlius, New York
800.473.0698
www.vosssigns.com

Trail Traffic Counters¹

GOODSON & ASSOCIATES
913.345.8555
www.trailmaster.com

IVAN TECHNOLOGIES

860.693.0699
ivantechнологies@email.com

PARTNERS

Trail Related Clubs and Organizations²

BICYCLE WV

<http://www.bicyclewv.com/>

BURNING ROCK ATV CLUB

www.burningrockatvclub.com

GREAT EASTERN TRAIL ASSOCIATION

www.greateastertrail.net

HATFIELD-MCCOY REGIONAL RECREATION AUTHORITY (HMRRA)

<http://trailsheaven.com>

MARY INGLES TRAILBLAZERS

www.maryinglestrailblazers.homestead.com

RALEIGH COUNTY CYCLE CLUB (EARTH, WIND & TIRE)

Mabscott, WV

<http://www.eathwindandtire.us>

WV CYCLING FOUNDATION

<http://www.wvcf.org>

WV MOUNTAIN BIKE ASSOCIATION (WVMBA)

<http://www.wvmba.com/>

WV RAILS-TO-TRAILS COUNCIL (WVRTC)

<http://www.wvrtc.org>

WV RIVERS COALITION (WVRC)

<http://www.wvrivers.org/>

WV SCENIC TRAILS ASSOCIATION (WVSTA)

<https://wvscenictrails.org>

WV WILDWATER ASSOCIATION

<http://www.wvwa.net>

Local Government²

CITY OF BECKLEY

Raleigh County

P.O. Box 2514

Beckley, WV 24802

304.256.1750

CITY OF HINTON

Summers County

P.O. Box 477

Hinton, WV 25951

304.466.3255

CITY OF MOUNT HOPE

P.O. Box 151

Mount Hope, WV 25880

304.877.2211

CITY OF OAK HILL

100 Kelly Ave.

Oak Hill, WV 25901

304.469.9541

FAYETTE COUNTY

100 Court St. P.O. Box 307

Fayetteville, WV 25840

304.574.4290

MERCER COUNT

1501 Main Street

Princeton, WV 24740

304.487.8309

NICHOLAS COUNTY

700 Main Street

Summersville

304.872.7830

RALEIGH COUNTY

215 Main Street, P.O. Box 2518

Beckley, WV 24802

304.255.9146

SUMMERS COUNTY

120 Ballengee St., P.O. Box 97

Hinton, WV 25951

304.466.7100

TOWN OF ANSTED

P.O. Box 798,

Ansted, WV 25812

304.658.5901

TOWN OF FAYETTEVILLE

P.O. Box 298

Fayetteville, WV 25840

304.574.0101

Statewide/Regional Non-Profits²

4-C ECONOMIC DEVELOPMENT AUTHORITY

Counties: Fayette, Nicholas, Raleigh, Summers

<http://www.4ceda.org>

MERCER COUNTY ECONOMIC DEVELOPMENT AUTHORITY

www.mercercoeda.com

13A/REGION 1 - PLANNING AND DEVELOPMENT COUNCIL

Counties: McDowell, Mercer, Monroe,

Raleigh, Summers, Wyoming

1439 E. Main Street, Suite 5

Princeton, WV 24740

304.431.7225

13D/REGION 4-PLANNING AND DEVELOPMENT COUNCIL

Counties: Fayette, Greenbrier, Nicholas,

Pocahontas, Webster

425 Main Street, Suite A

Summersville, West Virginia 26651

304.872.4970

APPALACHIAN COAL COUNTY WATERSHED TEAM (ACCWT)

304.252.4848

www.accwt.org

ARBuckle CREEK WATERSHED ASSOCIATION

Oak Hill, WV

724.244.4257

BECKLEY-RALEIGH COUNTY CHAMBER OF COMMERCE

www.brccc.com

BIG COAL RIVER WATERSHED ASSOCIATION

Counties: Boone, Raleigh

304.854.1939

CENTER FOR EXCELLENCE IN DISABILITIES

Morgantown, WV

<http://www.cedwvu.org/programs/wvats/recreation/>

CENTRAL APPALACHIA ENTERPRISE COMMUNITY

Includes Fayette County

<http://rurdev.usda.gov/rbs/ezec/ezec/wv/central.html>

CITIZENS CONSERVATION CORPS OF WV (CCCWV)

Beckley WV

www.wvccc.com

COAL RIVER MOUNTAIN WATCH

Counties: Boone, Raleigh

304.854.2182

www.crmw.net

CONVENTION AND VISITORS BUREAUS (CVB)

www.wvacvb.org

DEVELOPMENT DISTRICT ASSOCIATION OF APPALACHIA (DDAA)

<http://www.ddaa-ldd.org>

DUNLOUP CREEK WATERSHED ASSOCIATION

Counties: Fayette

757.373.6324

<http://dcwa.blogspot.com/>

DOWNSTREAM ALLIANCE

304.292.2450

www.downstreamstrategies.com/

FAYETTEVILLE CVB

www.visitfayetteville.wv.com

LOUP CREEK WATERSHED

Counties: Fayette

304.469.4888

MEADOW RIVER WATERSHED ASSOCIATION

Counties: Fayette, Greenbrier

304.392.2095

<http://meadowriver.org/>

MOUNTAIN RCD

Counties: Braxton, Fayette, Greenbrier,

McDowell, Mercer, Monroe, Nicolas,

Pocahontas, Raleigh, Summers, Webster

& Wyoming

304.469.9738

NEW RIVER CVB

310 Oyler Ave.

Oak Hill WV 25901

800.927.0263

www.newrivercvb.com

THE NATURE CONSERVANCY

WV Field Office

Charleston, WV

304.345.4350

www.nature.org/wherewework/northamerica/states/westvirginia

PINEY CREEK WATERSHED ASSOCIATION

Counties: Raleigh

304.228.1680

www.accwt.org/wv/Piney_Creek/index.html

PLATEAU ACTION NETWORK

Counties: Fayette

www.plateauactionnetwork.org/

SOUTHERN WV CONSERVATION DISTRICT

Counties: Fayette, McDowell, Mercer,

Raleigh, Summers, Wyoming

463 Ragland Road

Beckley, WV 25801

304.253.0261

<http://www.wvca.us/districts/?page=scd>

SOUTHERN WV CVB

Phone: 800 VISIT WV

www.visitwv.org

RAHALL APPALACHIAN TRANSPORTATION INSTITUTE (RTI)

<http://www.njrati.org>

WV ECONOMIC DEVELOPMENT COUNCIL

304.342.2123

www.wvedc.org

WV LAND AND MINERAL OWNERS ASSOCIATION

<http://www.wvalmoa.com>

WV LAND TRUST

304.346.7788

<http://www.wvlandtrust.org>

WV LOCAL TECHNICAL ASSISTANCE PROGRAM

304.293.9931

WV ON THE MOVE

304.345.1235

www.wvonthemove.net

WV RECREATION AND PARK ASSOCIATION (WVRPA)

<http://www.wvpa.org>

WV RESOURCE CONSERVATION AND DEVELOPMENT COUNCILS

<http://www.wv.nrcs.usda.gov/partnerships/rcd/stateDirectory.pdf>

WEST VIRGINIA RIVERS COALITION

304.637.7201

www.wvrivers.org

WV SURFACE OWNERS RIGHTS ORGANIZATION (WVSORO)

www.wvsoro.org

WV THERAPEUTIC RECREATION ASSOCIATION (WVTRA)

<http://www.wvtra.org/>

National Non-Profits²

ACTIVE LIVING RESOURCE CENTER

<http://www.activelivingresources.org>

ALLIANCE FOR BIKING & WALKING

<http://www.peoplepoweredmovement.org>

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

<http://www.transportation.org/>

AMERICAN HIKING SOCIETY (AHS)

<http://www.americanhiking.org/>

AMERICAN TRAILS

<http://www.americantrails.org/support.html>

BIKES BELONG

<http://bikesbelong.org/>

CENTER FOR RURAL AFFAIRS

<http://www.cfra.org/>

**GREEN INFRASTRUCTURE CENTER
(GIC)**

www.gicinc.org

**IMBA (INTERNATIONAL MOUNTAIN
BIKING ASSOCIATION)**

<http://www.imba.com>

IMBA TRAIL CARE CREW

<http://www.iimba.com/tcc>

IMBA TRAIL SOLUTIONS

<http://www.imba.com/trailsolutions>

**LEAGUE OF AMERICAN BICYCLISTS
(LAB)**

<http://www.bikeleague.org/>

**NATIONAL CENTER FOR SAFE
ROUTES TO SCHOOL (SR2S)**

www.saferoutesinfo.org

**NATIONAL RECREATION TRAILS
(NRT)**

<http://www.americantrails.org/nationalrecreationtrails/>

RAILS-TO-TRAILS CONSERVANCY

<http://www.railstotrails.org/>

**RETIRED SENIORS VOLUNTEER
PROGRAM (RSVP)**

<http://www.seniorcorps.gov/about/programs/rsvp.asp>

TRAILS TRAINING CALENDAR

<http://www.americantrails.org/Calendar.html>

State Agencies²

**COAL HERITAGE HIGHWAY
AUTHORITY (CHHA)**

Beckley, WV

304.256.6941

<http://coalheritage.org/page.aspx?id=70>

**NATIONAL COAL HERITAGE AREA
AUTHORITY (NCHAA)**

Beckley, WV

304.256.6941

<http://coalheritage.org/page.aspx?id=69>

VOLUNTEER WEST VIRGINIA

304.558.0011

http://www.volunteerwv.org/nd/index_volunteerwv.cfm

**WV COMMISSION FOR NATIONAL
AND COMMUNITY SERVICE (WV-
CNCS)**

Charleston WV

304.558.0111

www.volunteerwv.org

WV CONSERVATION AGENCY

<http://www.wvca.us>

WV DEPARTMENT OF COMMERCE

<http://www.wvcommerce.org/info>

**WV DEPARTMENT OF
TRANSPORTATION (WV-DOT) STATE
TRAIL PROGRAM**

304.558.3165

http://www.transportation.wv.gov/highways/programplanning/grant_administration/Pages/default.aspx

**WV DEVELOPMENT OFFICE (WVDO),
COMMUNITY RESOURCES**

800.982.3386

<http://www.wvcommerce.org/people/communityresources/default.aspx>

**WV DIVISION OF ENERGY –
OFFICE OF COALFIELD COMMUNITY
DEVELOPMENT**

304.558.2234

<http://www.energywv.org/community/coalfield.html>

WV DIVISION OF FORESTRY

<http://wvforestry.com>

**WV DIVISION OF NATURAL
RESOURCES (WVDNR)**

<http://wvdnr.gov>

WV DIVISION OF TOURISM

<http://wvcommerce.org/travel>

WV STREAM PARTNERS PROGRAM

<http://www.wvca.us/stream.cfm>

Federal Agencies and Programs²

**APPALACHIAN REGIONAL
COMMISSION (ARC)**

Washington, D.C.

<http://www.arc.gov>

CONTEXT SENSITIVE SOLUTIONS

www.contextsensitivesolutions.org

**CORPORATION FOR NATIONAL AND
COMMUNITY SERVICE**

<http://www.nationalservice.gov>

**FEDERAL HIGHWAY
ADMINISTRATION (FHWA) CONTEXT
SENSITIVE SOLUTIONS**

<http://www.fhwa.dot.gov/context/>

**FEDERAL HIGHWAY
ADMINISTRATION (FHWA) HUMAN
ENVIRONMENT**

<http://www.fhwa.dot.gov/environment/human.htm>

**FEDERAL HIGHWAY
ADMINISTRATION (FHWA) SAFE
ROUTES TO SCHOOL**

<http://safety.fhwa.dot.gov/saferoutes/>

LEARN AND SERVE AMERICA

<http://www.learnandserve.gov>

**NATIONAL PARK SERVICE
NATIONAL TRAILS SYSTEM**

<http://www.nps.gov/nts/>

**NATIONAL PARK SERVICE
RIVERS, TRAILS, AND
CONSERVATION ASSISTANCE
PROGRAM**

WV Field Office, Morgantown, WV

304.293.7528

<http://www.nps.gov/rtca>

**NATIONAL PARK SERVICE
VOLUNTEER SERVICES**

<http://www.nps.gov/getinvolved/volunteer.htm>

**PARTNERSHIP FOR THE NATIONAL
TRAILS SYSTEM**

<http://www.nationaltrailspartnership.org/>

**SURFACE TRANSPORTATION BOARD
(STB)**

<http://www.stb.dot.gov/>

US ACCESS BOARD

<http://www.access-board.gov/>

**USDA RURAL DEVELOPMENT
COMMUNITY DEVELOPMENT
PROGRAMS**

<http://www.rurdev.usda.gov/rbs/cdp.html>

US DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT:
EMPOWERMENT ZONE AND
RENEWAL COMMUNITY (EZ/RC)
PROGRAMS

[http://www.hud.gov/offices/cpd/
economicdevelopment/programs/rc/](http://www.hud.gov/offices/cpd/economicdevelopment/programs/rc/)

US DEPARTMENT OF INTERIOR,
OFFICE OF SURFACE MINING

www.osmre.gov

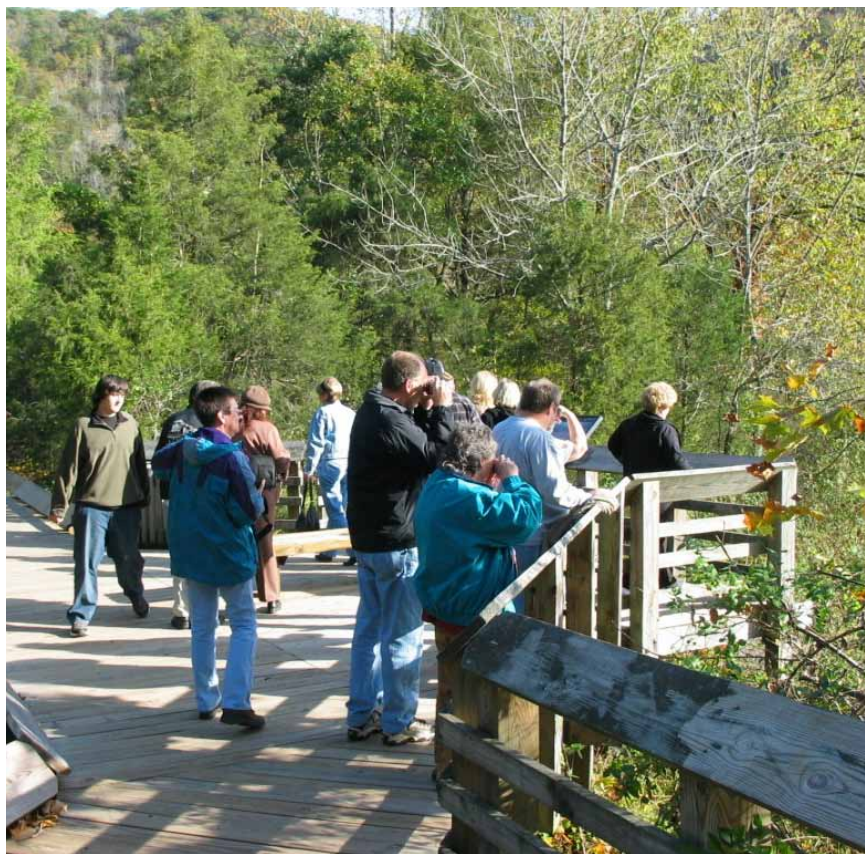
¹ International Mountain Bicycling
Association (2004)

² National Coal Heritage Area Authority
(2009)

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





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