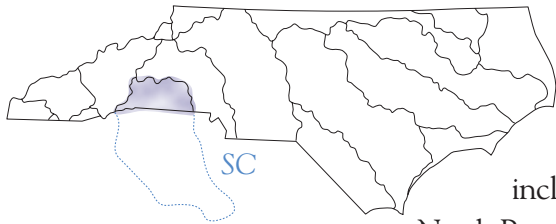


BROAD RIVER BASIN

The scenery and natural heritage of the Broad River Basin have captivated tourists and ecologists alike. Hollywood even memorialized some of these places on the big screen, including in battle scenes filmed for the 1992 movie "Last of the Mohicans" at the 404-foot Hickory Nut Falls.



The Broad River originates in the mountains of western North Carolina and flows southeast through the foothills and Piedmont before entering South Carolina. Major tributaries include the Green, First Broad, Second Broad and North Pacolet rivers. There are also four major man-made lakes, including the popular tourist destination Lake Lure, which was built in 1926 to supply electricity. Other reservoirs include Lake Adger and Kings Mountain Reservoir, also known as Moss Lake. Municipalities in the basin include Forest City, Kings Mountain, Chimney Rock Village, Lake Lure, Rutherfordton, Shelby and Spindale.

Bog turtle



BILL LEA

Some of the best-known natural beauties of the basin are Hickory Nut Gorge, Chimney Rock State Park and Lake Lure. Perhaps lesser known is the incredible diversity of flora and fauna within the basin. The Broad



KEVIN ADAMS

River Basin contains more than 100,000 acres of public and private lands with rare animals, plants and natural communities. These Significant Natural Heritage Areas provide habitat for more than 100 rare plant and animal species and 24 rare natural communities.



profile:

Total miles of streams and rivers: 1,513

Total acres of lakes: 1,954

Municipalities within basin: 27

Counties within basin: 8

Size: 1,514 square miles

Population: 204,803 (2010 U.S. Census)

Big Bradley Falls (left); Broad River (below)



MARK J. BREWER



Chimney Rock

KEVIN ADAMS



Tubing on the Green River

KEN TAYLOR, NCRWC

Chimney Rock State Park

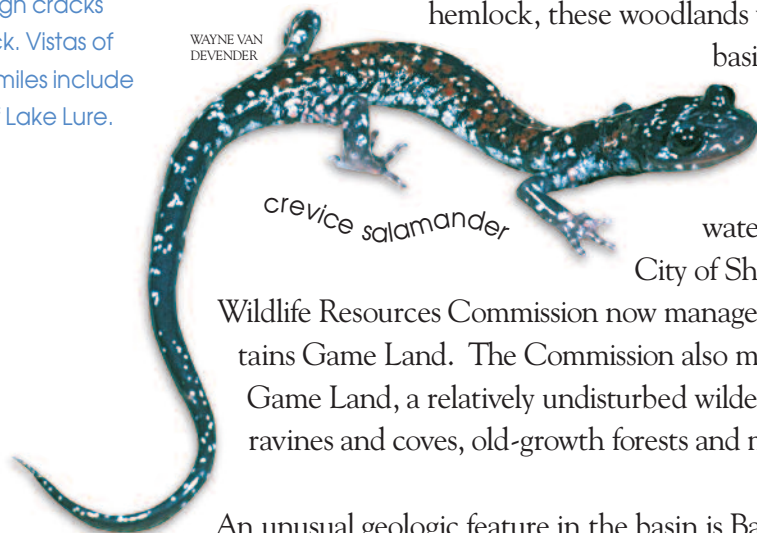
The upward-jutting rock "chimney" is the show-piece of Chimney Rock State Park. Towering 900 feet above the Broad River, the natural overlook may be climbed via trails or reached by a 26-story elevator inside the mountain. The chimney—made of gneiss rock—was separated from the rest of the mountain by movement of water and ice through cracks in the rock. Vistas of up to 75 miles include a view of Lake Lure.

Of the 100 or so rare plant species located within the watershed, one of the rarest is the globally endemic White Irisette. This federal and state endangered species is found along the Blue Ridge Escarpment in North Carolina and South Carolina, and was more recently discovered in several locations within the watershed in the South Mountains. The Green Salamander, a state-listed endangered species, Mole Salamander, Blue Ridge Gray-cheeked Salamander, and South Mountain Gray-cheeked Salamander are among the basin's rare residents. The Broad River Stream Crayfish and Broad River Spiny Crayfish occur only in this basin, and in 2006 the Carolina Foothills Crayfish was described as a new species and is endemic to the upper Broad and surrounding basins. Excessive sediments in rivers pose a threat to these crayfish and other aquatic species.

The headwaters of the First Broad River trickle down the south side of the rugged South Mountains. With peaks just under 3,000 feet and valleys thick with rhododendron and hemlock, these woodlands were saved from logging by residents in the

basin, public and private conservation groups and state government officials. Without this intervention, erosion caused by logging could have impaired water quality in a watershed that supplies drinking water for the City of Shelby and upper Cleveland County. The N.C.

Wildlife Resources Commission now manages the 17,829-acre tract as the South Mountains Game Land. The Commission also manages the recently purchased Green River Game Land, a relatively undisturbed wilderness area containing narrow gorges, steep ravines and coves, old-growth forests and mixed hardwood forests.



WAYNE VAN DEVENDER

crevice salamander



SUSAN MIDDLETON, DAVID LITTSCHWAGER

The cave-dwelling Indiana bat is on the federal Endangered Species List.

An unusual geologic feature in the basin is Bat Cave, the largest known granite fissure cave in North America. With a cathedral entrance room 300 feet long and 85 feet high, Bat Cave has more than a mile of passageways. Most caves are carved as water dissolves limestone;

however, Bat Cave was formed by the splitting and shifting of rock. The Nature Conservancy manages the cave and surrounding preserve, which is open to the public only during special Nature Conservancy field trips. Through the cave, the Conservancy hopes to restore the rare Indiana bat to its former range. Federally listed as an endangered species, the Indiana bat is imperiled due to its habit of living in large numbers in only a few caves. In addition, white-nose syndrome, first documented in North Carolina in 2011, is a serious threat to cave-dwelling bats. The crevice salamander, a geographical variant of the large, distinctive Yonahlossee salamander, dwells in crevices among the cave walls.



KEN TAYLOR, WILDLIFE IMAGES

Rumbling Bald rises above Lake Lure.

About 30 percent of streams in the basin are classified as trout waters, which means the state prohibits activities that would harm the fishery. Trout fishing is one of numerous recreational opportunities in the basin and has an economic output of more than \$170 million per year in the mountain region. The pristine headwaters of the Green River and most of its tributaries above Lake Summit are classified as Outstanding Resource Waters and given extra protection by the state.

Overall, water quality in the basin is good, but habitat degradation, development for second homes and vacation homes, and stormwater runoff are creating concerns about water quality throughout the basin. Stream habitats become stressed due to runoff from construction sites, residential areas, cropland, pastures and paved areas that don't allow water to soak into the soil (roads, parking lots, driveways and sidewalks). Stormwater (rain and melted snow) transports eroded soil, fertilizer, pesticides, metallic chemicals, and human and animal waste into surrounding waterways. Due to development pressures, there is also the need for efficient municipal wastewater treatment in the Broad River Basin, as well as properly constructed and maintained septic systems.

The success of public, private and nonprofit partnerships in protecting land in the basin—through purchases and easements—has been lauded as a national model for conserving natural resources. Many opportunities exist for people to support and get involved in protecting and maintaining public lands, streams, rivers and lakes. Conservation can also begin at home. Learn how to maintain your property to keep polluted runoff from entering your local waterways.

CHARLES BRASWELL JR.



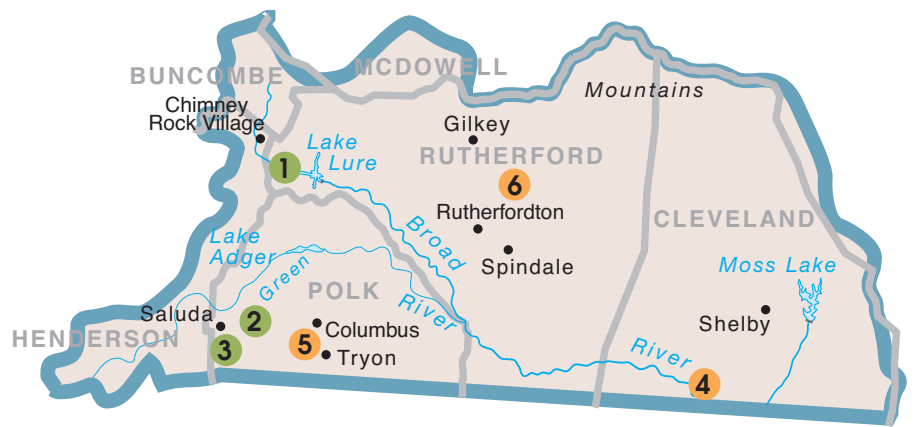
Hickory Nut Gorge

Hickory Nut Gorge is the only Blue Ridge escarpment gorge that can be viewed by car for its entire length, which exceeds 10 miles. The gorge drops some 1,800 feet from Hickory Nut Gap to its end at Lake Lure.

HIKING & BIKING



in the Broad River Basin



- hiking
- hiking and biking

The Broad River Basin offers many opportunities to enjoy and explore nature through walking, hiking and biking. This list includes places with at least a few trails for easy to moderate activity. Keep in mind that at some mountain sites, the steepness of terrain may limit easy activity, other than at an overlook or short path. Many sites include views of streams, rivers, creeks, lakes and/or waterfalls. Remember that some trails are multi-use, serving pedestrians, bicyclists, equestrians and other recreational users. For information about urban and regional bikeways, visit www.ncdot.gov/bikeped.

PHOTO COURTESY OF NC DIVISION OF TOURISM, FILM, AND SPORTS DEVELOPMENT

● HIKING ●

1 Chimney Rock State Park

www.ncparks.gov/Visit/parks/chro/trails.php
 ● 4,500 acres ● Several trails with a few options for easy hiking that include a trip to the 404-foot Hickory Nut Falls. Follow a network of stair steps and boardwalks to the top of the 2,280-foot “chimney” for views of Hickory Nut Gorge and a 75-mile panoramic vista.

2 Green River Game Land

www.nc-mountains.org/links/115 ● 10,000 acres ● 16.25 miles of trails over mostly rugged terrain in relatively undisturbed wilderness—including narrow gorges, steep ravines and coves and old-growth forests. Several easy trails—Long Ridge, Rock Hop and Bishop Branch—cover 4 miles, .5 miles and 2.5 miles, respectively.

3 Norman Wilder Forest

www.pacolet.org/pac_video.html ● 185 acres ● 2–3 miles of trails on the steep slopes of Little Warrior Mountain. A moderate hike through mixed hardwood forests—including steps and bridges—offers stunning views of sheer rock walls.



PHOTO COURTESY OF NC DIVISION OF TOURISM, FILM, AND SPORTS DEVELOPMENT



● HIKING and BIKING ●

4 Broad River Greenway

www.broadrivergreenway.com ● 1,500 acres ● About 20 miles of trails on both sides of the Broad River, including a .3-mile interpretive trail. Wheelchair-accessible.

5 Foothills Equestrian Nature Center

www.fence.org ● 390 acres ● 6 miles of multi-use trails, including a nature pond with boardwalk and a .3-mile paved, wheelchair-accessible trail.

6 Thermal Belt Rail-Trail

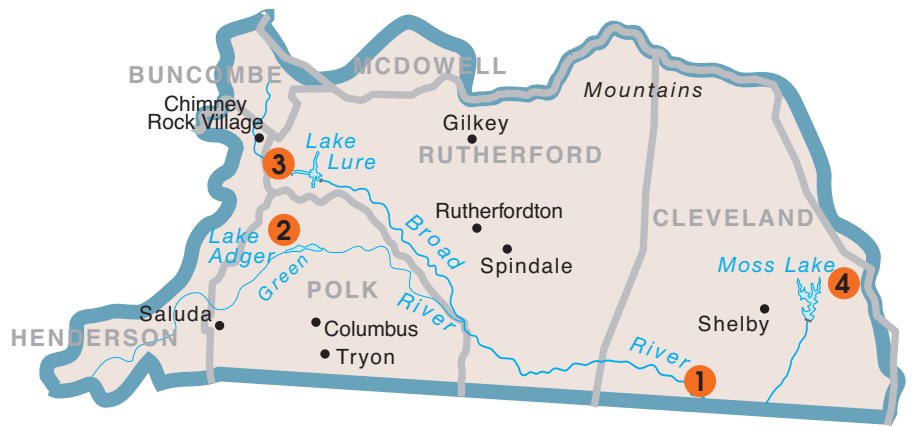
www.ncrailtrails.org/web/trails/thermal-belt
 ● 8-mile crushed stone trail along an old railway bed between Spindale and Gilkey.

= some trails designated as wheelchair accessible

PADDLING



in the Broad River Basin



The Broad River Basin offers many opportunities for paddling creeks, ponds, streams, rivers and lakes. The places included here offer public access areas maintained by state, federal or local governments. Privately operated marinas and boat docks may also be available. This list does not include locations for whitewater adventure. These trails and lakes are suitable for easy to moderate paddling.

1 Broad River Canoe Trail

www.broadrivergreenway.com ● A canoe trail starts at Broad River Greenway and travels into South Carolina just a few miles downstream. Paddlers often put in upstream of the greenway at N.C. Department of Transportation bridge right-of-ways and float down to the park.

2 Lake Adger

www.lakeadger.com/living/boating.asp ● 440 acres ● Lake Adger is a privately owned, tranquil lake impoundment on the Green River near the Green River Game Land. One public boat access area is available. Kayaking and canoeing are popular on the scenic lake, as there is a restricted horsepower limit on motorized craft, and no jet skiing or water-skiing is allowed.

3 Lake Lure

www.townoflakelure.com/washburn-marina.php ● 732 acres ● Now owned by the Town of Lake Lure, the lake was created by the damming of the Rocky Broad River at Tumbling Shoals in 1926 with the intent of establishing a resort community in western North Carolina. The town contracts with a private concessions company to operate a recreational beach and marina. Canoe and kayak rentals are available.

4 Moss Lake

www.cityofkm.com/lakeoffice_0.asp ● 530 acres ● Moss Lake has two public boat landings. The lake provides drinking water for the City of Kings Mountain, and is also called Kings Mountain Reservoir.

PHOTO COURTESY OF NC DIVISION OF TOURISM, FILM, AND SPORTS DEVELOPMENT



PHOTO COURTESY OF NC DIVISION OF TOURISM, FILM, AND SPORTS DEVELOPMENT



The rare and threatened dwarf-flowered heartleaf (left); Broad River (right)



N.C. NATURAL HERITAGE PROGRAM



MARK J. BREWER

WHERE SHOULD I GO

What makes the Broad River Basin so special? See for yourself. Visit these Environmental Education Centers to discover more about your ecological address:

- Chimney Rock State Park
- Foothills Equestrian Nature Center (FENCE)

For more information about Environmental Education Centers in North Carolina, check out the Office of Environmental Education and Public Affairs' website at www.eenorthcarolina.org.

HOW CAN I HELP

You can gain a sense of community pride by learning more and helping to protect streams, rivers and lakes in the Broad River Basin. The contacts listed below can help you do just that. To find out about local river organizations and conservation groups, contact your local soil and water conservation district. To find out about how you can get involved in local waterway and other litter cleanups, contact NC Big Sweep.

Broad River Basinwide Plan*

<http://portal.ncdenr.org/web/wq/ps/bpu/basin/broad>

North Carolina Big Sweep

www.ncbigsweep.org/

Clean Water Management Trust Fund

www.cwmtf.net/

North Carolina Stream Watch

www.ncwater.org/Education_and_Technical_Assistance/Stream_Watch/

Division of Water Quality, Stormwater and Runoff Pollution

www.ncstormwater.org/

North Carolina Water Science Center

<http://nc.water.usgs.gov/>

North Carolina Association of Soil & Water Conservation Districts

www.ncaswcd.org

**Basinwide water quality planning is a nonregulatory, watershed-based approach to restoring and protecting the quality of North Carolina's surface waters. The N.C. Division of Water Quality welcomes community input.*

▶ To order additional brochures on any of North Carolina's 17 river basins, a general river basin booklet or a poster, fill out the online order form at www.eenorthcarolina.org.

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