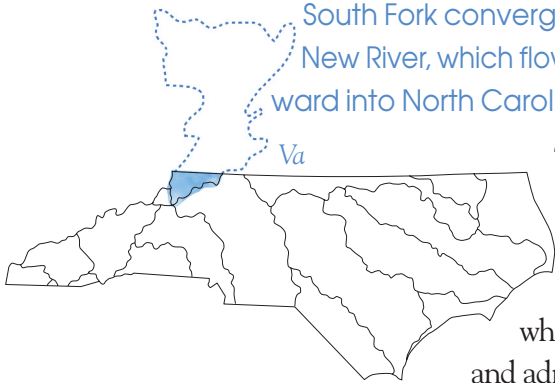


NEW RIVER BASIN

The New River is thought to be one of the oldest rivers in the world. Some geologists estimate its age at 300 million years old. This clean, clear river begins as two streams on the western side of the Blue Ridge Mountains in Watauga County. The North Fork and South Fork converge along the Ashe-Alleghany County line as the New River, which flows northward into Virginia and loops back southward into North Carolina twice before continuing north into Virginia.



The river winds and cuts its way through metamorphic rock more than a billion years old. But its age is not all that distinguishes the river. A sense of proud ownership also surrounds the New, which has been embraced by residents in the basin and admirers from around the country.

In 1998, President Clinton visited and named the New River an American Heritage River, an honor he bestowed on only 14 other rivers in the nation. The designation brings with it federally funded, community-driven initiatives for protecting the river and for guiding sustainable

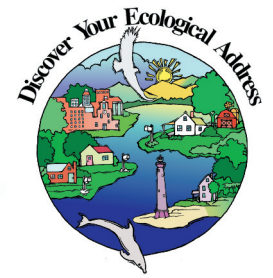
KEN TAYLOR, NCWRC



growth in the basin. The lower South Fork New River and the North Carolina portion of the New River—26 miles—are designated as National Scenic Rivers. That stretch is also classified by the state as Outstanding Resource Waters because of its recreational and ecological importance and its excellent water quality.

Stewardship is a tradition in the New River Basin—in the early 1970s, residents banded together to prevent dams from being built on the New in North Carolina and Virginia. The river's multiple scenic designations now ensure that the river will continue to flow freely.

New River



profile:

Total miles of streams and rivers: 918 miles

Municipalities within basin: 6

Counties within basin: 3

Size: 754 square miles

Population: 70,436 (2010 U.S. Census)

Tiny Turtle

More bog turtles live in the New River Basin than any other river basin in the state. Weighing only 4 ounces, the bog turtle is one of the rarest turtles in North America and is federally listed as a threatened species. Destruction of habitat and illegal collection of turtles for the pet trade have caused populations to dwindle.



NCWRC

BLUE RIDGE MOUNTAINS, ASHE COUNTY

The Blue Ridge Mountains have the highest elevations and most rugged topography in the Appalachian Mountains of eastern North America. The North Carolina portion of the Blue Ridge includes about 6,000 square miles. Forty-three peaks exceed 6,000 feet in elevation.



NCWRC



Christmas Trees

Fraser fir trees cover 15,000 acres of mountain slopes in the New River Basin, making it the largest producer of Christmas trees in North Carolina.

JON C. LAKEY



Although extreme white-water adventure is characteristic of the northern reaches of the New in West Virginia, several easy rapids make the New in North Carolina ideal for recreational paddling.

The Amphibolite Mountains, which top 5,000 feet in places, begin in northeastern Watauga County and extend into central Ashe County. This subset of the Blue Ridge Mountains north of Boone includes Elk Knob and Howard Knob and is named “Amphibolite” after the type of metamorphic rock that underlies a large portion of the region. The mountains contain mineral rich soils that, in turn, give them a higher pH, which aids in nurturing an astonishing diversity of plants. More than 70 percent of the 120 rare plants in the basin live here.

One of the rarest plant species within the New River Basin is Virginia Spiraea, a federal and state threatened species. It grows right along the river banks at the water’s edge and is frequently uprooted during flood events. There are also many rare plants found in the numerous wetlands that are located within the basin. Some of them include Bog Rose, Fen Orchid, Marsh-Marigold, Goldenthread and Robin Runaway. There are at least 29 non-vascular plant species known from the basin. Among the rarest are the federal and state listed Rock Gnome Lichen and the Bluff Mountain Reindeer Lichen. Within the New River Basin are at least 22 documented natural communities. The New River Basin contains one of the highest concentrations of wetlands in western North Carolina, with at least five different types of these wetland communities documented from within the New River Basin. These include Southern Appalachian Bog (both northern and southern subtypes), Swamp Forest-Bog Complex, Southern Appalachian Fen (only one known occurrence), and both Low and High Elevation Seeps. Nearly 90 percent of the state’s original mountain bogs have been drained or converted to man-made features. The



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lands they occur on are generally low-lying flat areas that were desirable for settlement and agricultural practices. These wetlands are also home to several rare animal species. The bog turtle, North America's smallest turtle at 4 inches long, has been a casualty of that destruction and is now a federally listed threatened species.

The rivers and streams of the New River Basin contain a wide diversity of aquatic organisms. The North Fork New River, South Fork New River, New River, and Little River, in addition to numerous tributaries, are designated Aquatic Significant Natural Heritage Areas, based on the presence of rare aquatic species. Four small fish—the Kanawha minnow, sharpnose darter, tonguetied minnow, and Kanawha darter, are found nowhere else in North Carolina

but the New River Basin. Two aquatic amphibians, the hellbender and common mudpuppy, also make their home in the New River Basin. Old Field and Call creeks, two Outstanding Resource Waters in the basin, have naturally reproducing populations of brook trout, North Carolina's only native trout species. "Brookies" are abundant only in clean, oxygen-rich waters at or above 3,000 feet and cooler than 68 degrees F.

Much of the land disturbance in the basin takes place on steep mountain slopes, which are naturally vulnerable to soil erosion. These activities include homebuilding and Christmas tree farming. Many tree farmers are participating in voluntary, experimental programs to lessen the impact of Christmas tree production on water quality.

Population growth is often accompanied by removal or alteration of natural areas, which may damage or destroy wildlife habitat and harm surrounding waters when pollutants wash into them. As land is cleared for development, rain and melting snow (stormwater) pick up eroded sediments, pesticides, fertilizers and road salts and carry them to streams and rivers. Runoff of human and animal waste is also a problem. Proper construction and maintenance of septic systems and efficient municipal wastewater treatment are critical to protecting water quality. Responsible

management of these and other activities on land is needed to help protect streams and rivers. Every person, business, industry, landowner, town and county shares responsibility for the health of waters in the basin.



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The development of greenways (land trails), blueways (paddle trails) and parks is a popular, growing initiative in many river basins to allow residents and tourists to enjoy a region's natural treasures. The Middle Fork Greenway Association, for example, is one organization raising money for a greenway that will connect the towns of Boone and Blowing Rock. A variety of skills, knowledge and talents is necessary to solve water quality problems—which is why it's so important for many different people, organizations and agencies to pool their resources to protect a community's water resources.



KEN TAYLOR, NCWRC



JON C. LAKEY

WHERE SHOULD I GO ?

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

- Blue Ridge Parkway
- Elk Knob State Park
- New River State Park
- Mount Jefferson State Natural Area

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 New 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.

Clean Water Management Trust Fund
<https://cwmtf.nc.gov>

North Carolina Association of Soil & Water Conservation Districts
www.ncaswcd.org

New River Basinwide Plan*
<https://deq.nc.gov/about/divisions/water-resources/planning/basin-planning>

North Carolina Division of Water Resources Education Programs
<https://deq.nc.gov/about/divisions/water-resources/water-resources-training/public-involvement/project-wet>

North Carolina Water Science Center
<http://nc.water.usgs.gov/>

**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 Resources 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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