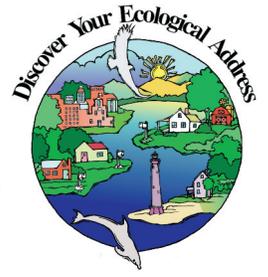
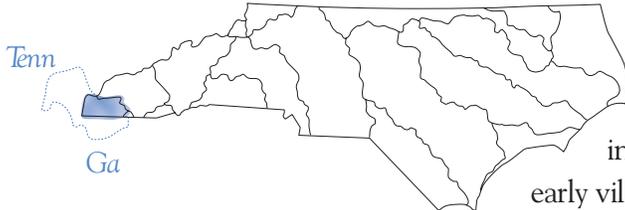


HIWASSEE RIVER BASIN



Living in the westernmost part of North Carolina, the Hiwassee River Basin is the land of the Cherokee. The Hiwassee's name comes from the Cherokee word "Ayuhwasi," which refers to a savanna or meadow.



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Excavations in progress in 1934 at the Peachtree Mound, near Murphy, N.C.

Peachtree Mound near present-day Murphy is considered one of the most important ancestral Cherokee sites in North Carolina and may represent the early village of Guasili. Native Americans built earthen mounds, often for use as burial sites. A team from the Smithsonian Institute found nearly 250,000 pieces of pottery at the village site.

The headwaters, or origin, of the Hiwassee River lie in the mountains of northern Georgia and western North Carolina. The river veers west into Tennessee to join the Tennessee River north of Chattanooga. The North Carolina portion of the basin includes the Hiwassee River and its two major tributaries,

the Nottely and Valley rivers, in Clay and Cherokee counties. Three notable, scenic lakes—Apalachia, Hiwassee and Chatuge—capture the flow of the Hiwassee River in the North Carolina portion of the basin. The Tennessee Valley Authority manages releases of water from these lakes to produce hydroelectric power, improve navigation and provide flood control.

profile:

Total miles of streams and rivers: 931

Municipalities within basin: 3

Counties within basin: 2

Size: 644 square miles

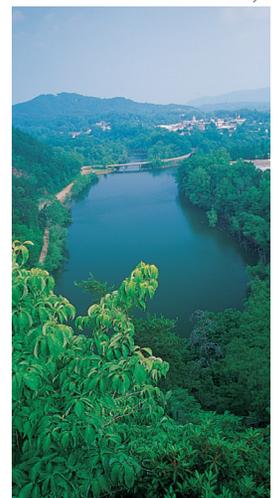
Population: 38,237 (2010 U.S. Census)

BILL LEA



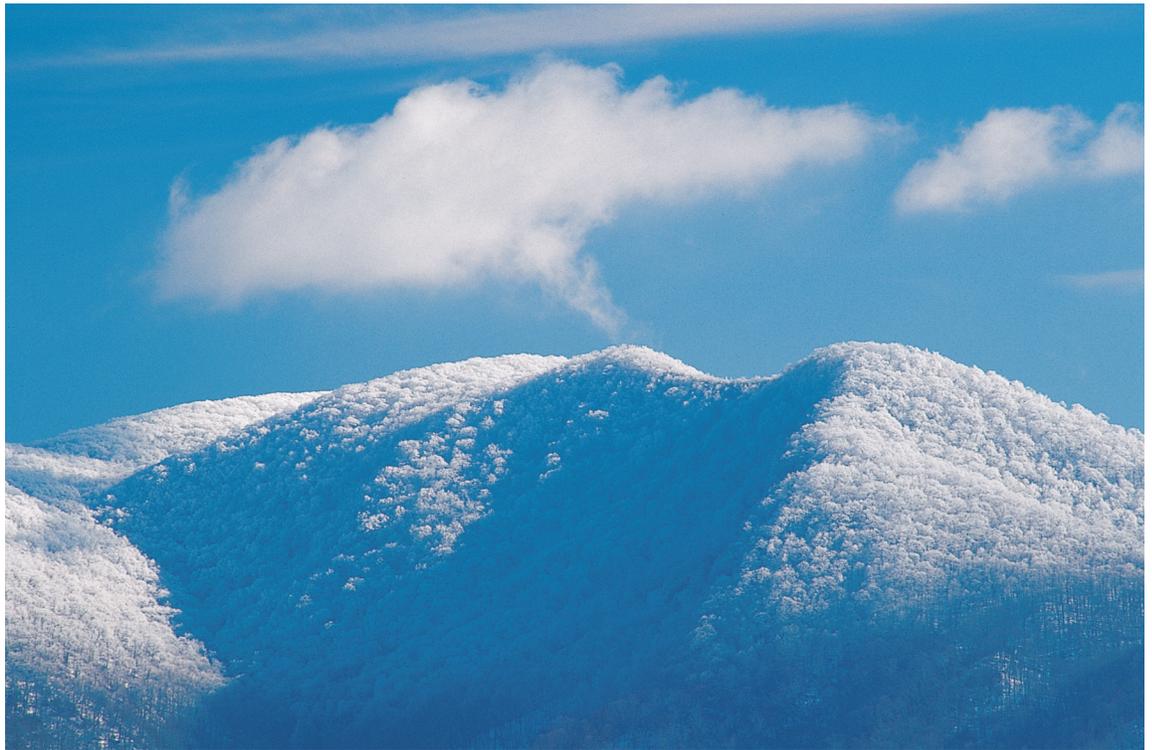
Cove hardwood forest (left); Hiwassee River at the town of Murphy

CHARLES BRASWELL, JR.



Hiwassee Lakes

Boasting 180 miles of shoreline, Lake Hiwassee is almost completely surrounded by Nantahala National Forest. The beauty of Lake Chatuge, with its 130 miles of shoreline and backdrop of scenic peaks, has been compared to a "Swiss Alpine lake." The Cherokee called the encircling Tusquitee Mountains "the great blue hills of God." Lake Apalachia, downstream of Lake Hiwassee, lacks developed recreation areas and is popular among paddlers and other nature buffs seeking solitude. Bluegill, yellow perch, crappie, muskie and bass attract anglers to the basin's lakes.



BILL LEA

Snow dusts the Tusquitee Mountains in the Nantahala National Forest.

The Hiwassee River Basin contains many plant and animal species that are endangered, threatened or rare. Christy's elimia, a freshwater snail with an olive-colored, conical shell, is endemic to the basin, meaning it has been found nowhere else in the world. The Sicklefin Redhorse, a rare sucker fish, is a candidate for federal listing. The 2-foot-long fish is olive green with a striking, crimson tail and a distinctive, sickle-shaped fin on its back. It is found in the Little Tennessee and Hiwassee river basins only.

A federal and state species of concern, the hellbender is a large aquatic salamander inhabiting streams in the Hiwassee River Basin and other western North Carolina basins. This species requires cool, free-flowing waters free from excess sediments and pollutants. The federally endangered green pitcher plant, which occurs in the Hiwassee basin and nowhere else in North Carolina, has upright, tubular leaves that trap insects it "digests" as a supplemental nutrient source.

U.S. FISH AND WILDLIFE SERVICE, RICHARD BIGGINS



Littlewing pearl mussel

Nearly one-third of the basin is within forested public lands, mostly the Nantahala National Forest. The state's Natural Heritage Program has identified several natural communities in the basin with outstanding conservation value, including moist cove forests, rocky cliffs and mountain bogs. Fires Creek boasts excellent water quality and a mature, unfragmented forest that is habitat for several rare amphibians, including the hellbender. Together with the Tusquitee-Big Tuni Creek Natural Heritage Area, this region features an impressive population of rare aquatic insects. An important food source for trout, many of these species require excellent water quality.



WAYNE VAN DEVENDER

Since most streams drain undeveloped mountain areas, water quality in the basin generally remains good. Future growth in the basin, however, must be managed wisely to keep streams and rivers clean. Clay County has been particularly attractive to developers because of scenic beauty, access to multilane highways, proximity to Atlanta and recreational opportunities on nearby Lake Chatuge.

Poor management of land activities has already compromised water quality in several creeks and rivers in the basin. When land is disturbed—whether for agriculture or residential and commercial development—sediment washes into streams, muddying the water and harming aquatic organisms and their habitat. Bound to these sediments are fertilizers, pesticides and other pollutants. Clearing of trees and shrubs along land bordering streams and wetlands also degrades habitat, and it contributes to erosion and flooding. Vegetation helps stabilize banks and filter sediments, and it shades and cools the water. Some fish species require the higher levels of dissolved oxygen found in cool, clear water.

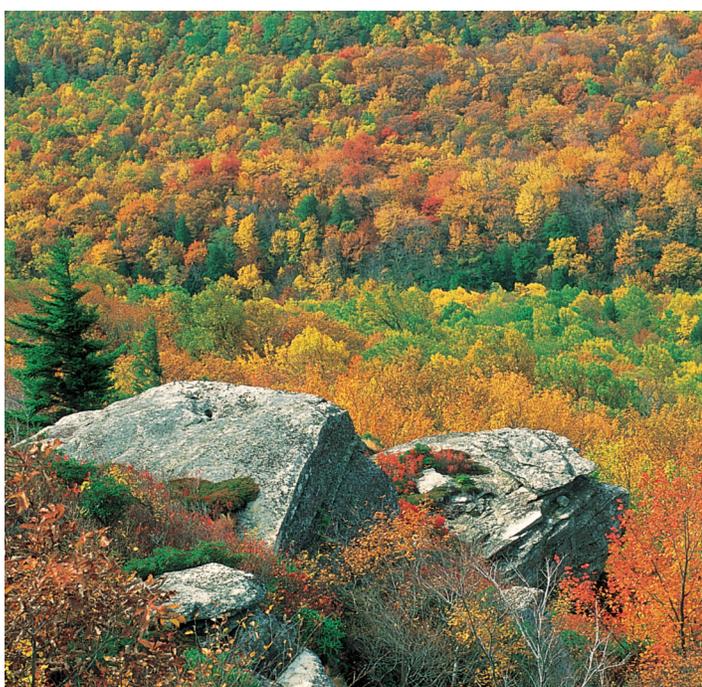
With the help of grant funds, the Hiwassee River Watershed Coalition is involving residents and local governments in promoting effective, sustainable solutions to water quality problems. The community has rehabilitated miles of eroded streambanks and worked with landowners participating in voluntary conservation. The coalition even purchased a specialized planting drill that farmers can use to sow seeds and plant crops without tilling, reducing soil runoff. The coalition has also hosted workshops on the aesthetic and economic benefits of incorporating environmentally sensitive design in residential development. In Cherokee County, citizens have established an outdoor education center to preserve the community's cultural and natural heritage and provide a place of learning for students and residents.



Paddlers hug the banks of the Hiwassee River.

CHARLES BRASWELL JR.

Clay County schools developed a 4-acre outdoor classroom with a 1,100-foot boardwalk (below, right), wetland observation deck and trails; rocky cliff (left).



BILL LEA



CLAY COUNTY COMMUNITIES IN SCHOOLS

Shooting Creek in Clay
County, N.C. (left);
Lake Chatuge (right)



CALLIE L. DOBSON, N.C. DIVISION OF WATER QUALITY



SUSAN EPPS WARD

WHERE SHOULD I GO

Environmental Education Centers are public facilities offering programs and resources that promote environmental education. Did you know that there are more than 200 of these centers in North Carolina? Although no EE Centers exist yet in the Hiwassee River Basin, the neighboring Little Tennessee and Savannah river basins are home to many. Whether they are parks, nature centers, museums or other places of learning, EE Centers can help everyone find out more about their ecological address.

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 Hiwassee 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>

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

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

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.

Office of Environmental Education and Public Affairs, N.C. Department of Environmental Quality. Editor Carla Burgess • Designer KC Schott, Red Gate Design • Special Thanks to the N.C. Wildlife Resources Commission, N.C. Division of Water Resources and N.C. Natural Heritage Program • Date: 2018 • 5,000 copies of this public document were printed at a cost of \$1,300 or \$0.26 per copy.