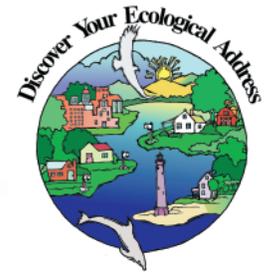
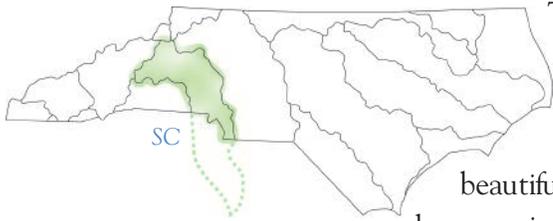


CATAWBA RIVER BASIN



The Catawba River Basin in North Carolina is a place of extremes—you can discover both urban and wild adventures within its boundaries. The basin contains a large national wilderness area near its headwaters and a major metropolitan area where the Catawba River flows into South Carolina. This haven of natural wonders includes the 6,000-foot Grandfather Mountain, the Pisgah National Forest, Linville Falls, one of the most beautiful and popular cascades in the Appalachian Mountains, and Linville Gorge, one of the deepest canyons in the eastern United States.



The Catawba River begins on the eastern slopes of the Blue Ridge Mountains in McDowell County.

It flows east, then south into Lake Wylie on the North Carolina-South Carolina border. Many

beautiful, clear streams in the upper reaches of the basin have received state and national attention for their unspoiled

character. The 23-mile Wilson Creek was designated a National Wild and Scenic River by Congress in 2000. It flows through the Pisgah National Forest and flows through the Wilson Creek Gorge before joining the Johns River. The basin's Linville River also has special scenic character—the lower 13 miles is designated a State Natural and Scenic River. It spills dramatically through the rugged Linville Gorge and then flows into Lake James. Other large tributaries in the Catawba River Basin include the Johns, South Fork Catawba, Henry Fork and Jacob Fork Rivers.

profile:

Total miles of streams and rivers:
9,389

Total acres of lakes:
50,764

Municipalities within basin: 64

Counties within basin: 11

Size: 3,285 square miles

Population:
1,170,512
(2000 U.S. Census)

The basin is also a land of lakes. The Catawba River contains the most major dams of any North Carolina river. The longest free-flowing stretch of the Catawba River in North Carolina is only about 17 miles. Most of the 224-mile river exists as a chain of seven man-made lakes, which first supplied electric power for industry and now provide recreation, drinking water and electricity for expanding Piedmont towns and cities. One of these reservoirs, Lake Norman, is the largest man-made lake in the state. At 32,000 acres, it's often called North Carolina's "inland sea." (The river feeds four additional reservoirs in South Carolina.)

CHARLES BRASWELL JR.



Lake James

CHAIN OF LAKES

Dams along the Catawba River in North Carolina created seven reservoirs. When many hydropower dams were built, the focus was mainly on the benefits of electricity, flood control and water supply, though today the lakes are also a cherished recreational resource. Damming rivers, however, has had some negative effects on the environment in terms of altering hydrology and wildlife ecosystems. The Catawba-Wataree Water Management Group is a non-profit organization that was created in response to the dam relicensing throughout the Catawba River Basin. For more information on the organization and the latest information regarding the basin's water and energy saving projects, please visit their website at www.catawbawatareewmg.org.

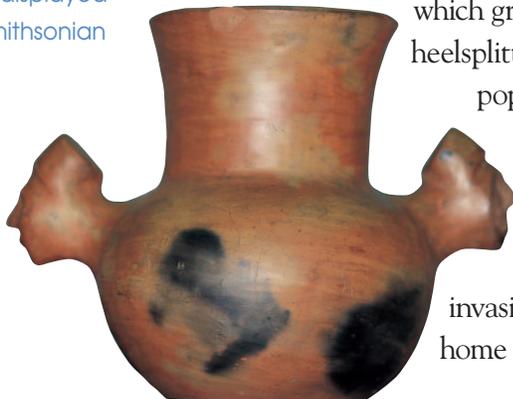


Boats anchored on Lake Norman

CHARLES BRASWELL, JR.

People of the River

The Catawba Indians and their ancestors have lived in the Catawba River Valley for more than 10,000 years. Their name for themselves in their own language, *yi kátapu*, means "people in the fork of the river." The river provided the clay that allowed the Catawba to become master potters. The tribe is renowned for its aboriginal pottery, which is displayed in the Smithsonian Institute.



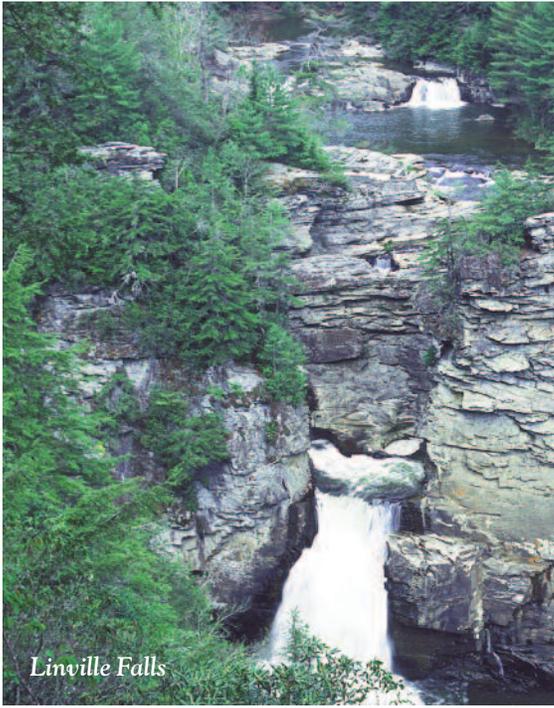
JODY DUGGINS, NCRWC

The Catawba River was named for the tribe that first settled its banks. Today the Catawba is the most densely populated river basin in the state. More than 2 million people now make their home here. Charlotte, the largest municipality in the state, contains almost half of the basin's population—more than 730,000 people.

The basin is also home to a large variety of animal residents, many of them unique and rare. A globally rare dragonfly, Edmund's snaketail, is only known to exist in two locations, Upper and Wilson Creeks in Burke and Caldwell counties. The Linville River above Linville Falls is home to the endemic Grandfather Mountain Crayfish, which is found nowhere else on earth. The federally endangered Carolina heelsplitter, a freshwater mussel, is found in a small section of Waxhaw Creek in Union County and Sixmile Creek on the Union and Mecklenburg county line. There are only three populations in North Carolina and 10 total populations in the world of this sharp-edged mollusk, which grows to only about four inches long. Like all freshwater mussels, the heelsplitter is sensitive to changes in water quality. Some Carolina heelsplitter populations have been reduced to a few dozen mussels. Sediment pollution is a culprit in the mussel's decline. As well as muddying the water, sediment tends to bind to and carry other pollutants across the landscape and into waterways. Sediment also covers the spawning beds of fish and, by decreasing the depth of lakes, adds to invasive weed, mosquito and water-warming problems. Agriculture and home or road construction are typical sources of sediment pollution.



*Edmund's
snaketail
dragonfly*



Linville Falls

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

Linville Gorge Wilderness The rugged, spectacularly scenic Linville Gorge has been called the “Grand Canyon of the East.” From the rim of the gorge, the view plunges 2,000 feet. Thrill-seekers kayak the gorge’s white-water, and backcountry hikers brave primitive trails to enjoy a primeval experience. Casual explorers can glimpse the gorge from numerous highway overlooks. Spanning more than 12,000 acres, Linville Gorge was one of the first National Wilderness Areas designated by the Wilderness Act of 1964. It is bound by Linville Mountain to the west and Jonas Ridge to the east and carved by the Linville River. The river spills over the double-cascading Linville Falls at the beginning of the gorge. The walls of the gorge provide a

remarkable window into an unusual geologic phenomenon—billion-year-old hard rocks atop softer ones only half that age. The forces of ancient continental collisions thrust younger metamorphic rock underneath the hard cap of granite-gneiss. As the river has undermined the soft rock underneath over millions of years, the top layer has continued to collapse. Through this process, Linville Falls is thought to have moved some 12 miles upstream from its original location, creating the gorge as it migrated.

CATAWBA RIVER BASIN

You may have noticed Catawba River Basin signs posted along highways. These were created through a partnership between the Office of Environmental Education and the N.C. Department of Transportation with funding from the Federal Transportation Enhancement Program. Signs in each of the state’s 17 river basins call attention to basin boundaries and promote stewardship of public waters.

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



Linville Gorge

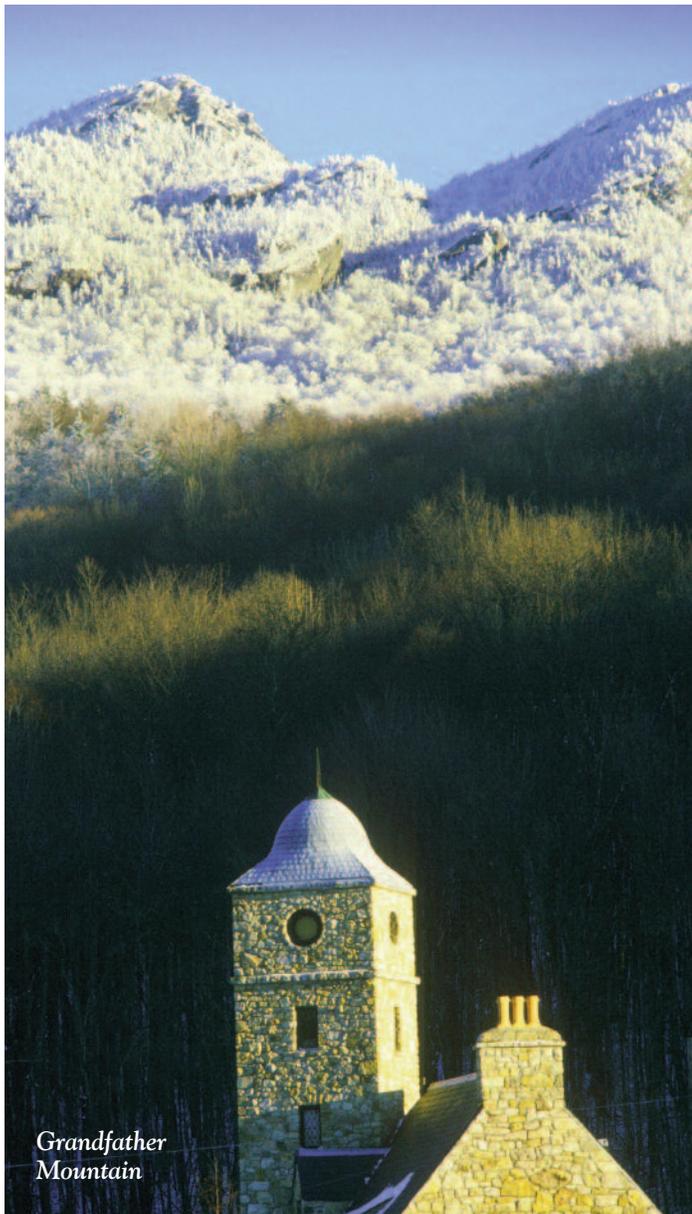


Linn Cove Viaduct

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

Linn Cove Viaduct The section of the Blue Ridge Parkway that snakes around Grandfather Mountain is a marvelous feat of engineering and a monument to environmental sensitivity. At 4,100 feet, the 1/4-mile stretch of road was built from the top down without massive cuts into the mountain and by removing only those trees in the direct path of the new road. Builders used 153 pre-cut, custom-made concrete segments weighing 50 tons each. These were then lowered into place using cranes. The National Park Service and private landowners compromised to make sure this vital connecting road didn't destroy the character of the mountain.

With sinewy curves, it hugs the mountain and affords spectacular panoramic views. Designers even tinted the concrete with iron oxide to blend the structure with the existing rock outcroppings. The roadway has received multiple prestigious design awards and has been dubbed "the most complicated concrete bridge ever built."



Grandfather Mountain

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

Grandfather Mountain At 5,964 feet, Grandfather Mountain is the highest point along the Blue Ridge Escarpment. Its biological diversity is as impressive as its size and grandeur—it provides habitat for more globally rare species than any other mountain east of the Rockies. Within the span of 4,500 acres are 16 distinct ecological communities. In 2009, nearly 2,500 acres of Grandfather Mountain's "backcountry" became Grandfather Mountain State Park. The top half of the mountain and the attractions are managed by the Grandfather Mountain Stewardship Foundation, a non-profit organization dedicated to preservation and environmental education. Though development will never mar the mountain's backcountry character, air pollution and non-native insects are taking their toll on trees in the mountain's spruce-fir forest, one of the country's rarest ecosystems. The tiny spruce-fir moss spider, which is on the Endangered Species List, is one of the native creatures struggling to survive. The spider and the Virginia big-eared bat are among 66 rare and endangered species found in the preserve.

Several of the Catawba lakes are showing signs of stress from excessive amounts of nitrogen and phosphorus in stormwater runoff (rain and melted snow flowing across land). In small amounts, these nutrients are beneficial to aquatic life, but excessive amounts can trigger algae blooms. These can affect the water's taste and odor and rob the water of oxygen, which can cause fish kills. Nutrients and other contaminants (eroded soil, fertilizer, pesticides, metallic chemicals, and human and animal waste) wash 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).

Citing explosive urban growth in the region, the national conservation organization American Rivers ranked the Catawba River as the most endangered river in America in 2008. Local governments, as well as state agencies and conservation groups, are working to tackle water pollution throughout the Catawba River Basin. The citizen watch program, Catawba RiverKeeper, works to educate and involve residents in protection efforts. You can help reduce the impacts of runoff on water quality by keeping fertilizer, pesticides, and yard and animal wastes out of streets and storm drains. You can also get involved in the many conservation organizations working to address environmental problems in the basin.

CHARLES BRASWELL, JR.



KEN TAYLOR, NCWRC

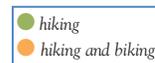
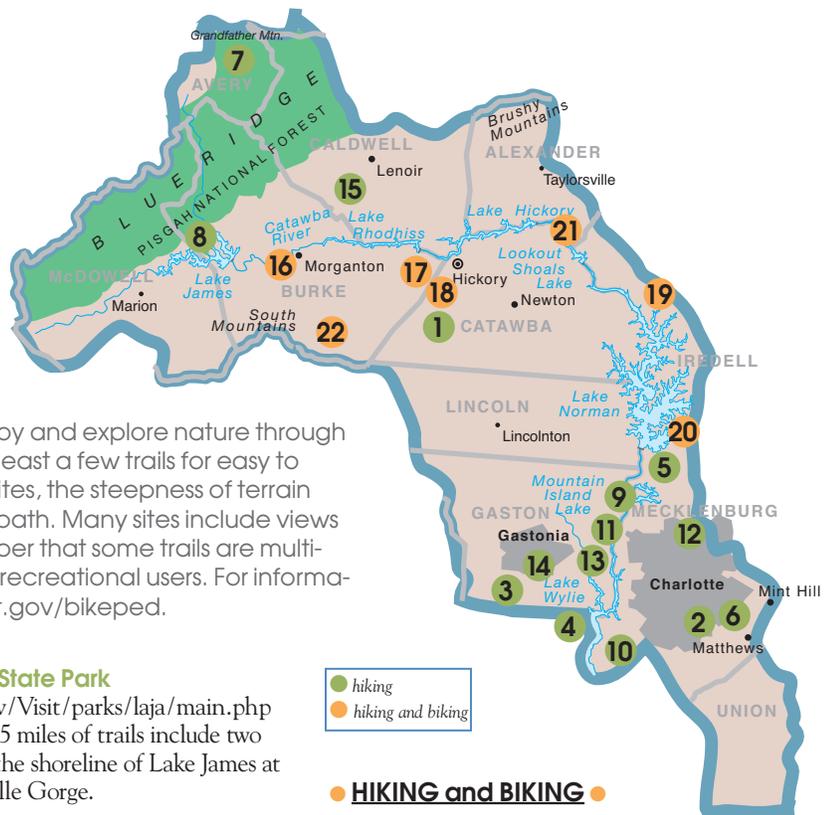


HIKING & BIKING



in the Catawba River Basin

The Catawba 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.



● HIKING ●

1 Bakers Mountain Park
www.catawbacountync.gov/depts/parks/bakrmain.asp ● 189 acres ● 6 miles of trails through mature chestnut oak forest and mountain laurel. .25-mile paved wheelchair-accessible trail. Observation platform at top of mountain provides view of Catawba Valley.

2 Charlotte Nature Museum
www.discoveryplace.org/naturemuseum.asp ● .25-mile nature trail with a wildflower garden and large stand of native paw paw trees. Foot-bridge across Little Sugar Creek to Freedom Park Lake.

3 Crowders Mountain State Park
www.ncparks.gov/Visit/parks/crmo/main.php ● 5,094 acres ● 11.9 miles of trails. Trails lined with wildflowers and mountain laurel lead along the ridges and to the summits of Crowders Mountain and Kings Pinnacle. Other trails are easy promenades through pastoral surroundings.

4 Daniel Stowe Botanical Garden
www.dsb.org ● 400 acres ● 1.5 miles of woodland trails featuring native plants.

5 EnergyExplorium
www.duke-energy.com/visitor-centers/energyexplorium.asp ● 1-mile nature trail along the shore of Lake Norman.

6 Evergreen Nature Preserve
www.meckbirds.org/spots/descriptions.html#evergreen ● 78 acres ● 2 miles of trails offer scenic views of forests, fields and streams. A birding hot spot.

7 Grandfather Mountain
www.grandfather.com and www.ncparks.gov/Visit/parks/grmo/main.php ● 4,500 acres ● At 5,964 feet in elevation, Grandfather Mountain soars above the Blue Ridge region.

8 Lake James State Park
www.ncparks.gov/Visit/parks/laja/main.php ● 605 acres ● 4.5 miles of trails include two footpaths along the shoreline of Lake James at the base of Linville Gorge.

9 Latta Plantation Nature Preserve
www.lattaplantation.org/links/index.shtml ● 1,343 acres ● 16 miles of trails on a peninsula extending into Mountain Island Lake.

10 McDowell Nature Preserve
www.charmeck.org/mecklenburg/county/ParkandRec/Facilities/Pages/home.aspx ● 1,108 acres ● 7 miles of trails through mostly forested, rolling terrain along the banks of Lake Wylie.

11 Mountain Island Park
www.mtholly.us/departments/parks-recreation ● 46 acres ● 1-mile trail along the Catawba River below Mountain Island Lake.

12 Reedy Creek Park and Nature Preserve
www.charmeck.org/mecklenburg/county/ParkandRec/Facilities/Pages/home.aspx ● 727 acres ● 10 miles of hiking trails with scenic views of small lakes, forests, fields and streams.

13 River Street Park
www.mtholly.us/departments/parks-recreation ● 10 acres ● Neighborhood park with short trail along Dutchman's Creek.

14 Schiele Museum of Natural History and Planetarium
www.schielemuseum.org/ ● .7-mile nature trail passes by reproductions of a Catawba Indian Village and an 18th-century back-country farm.

15 Tuttle Educational State Forest
www.ncesf.org/TESF/home.htm ● 295 acres ● Short, interpretive trails through rolling terrain among pines and hardwoods, with access to streams.

● HIKING and BIKING ●

16 Catawba River Greenway Park
www.ci.morganton.nc.us/index.php/residents-menu/catawba-river-greenway ● 112 acres ● 3.8-mile trail (wheelchair-accessible) connects with the .6-mile Freedom Park greenway via a 171-foot-long bridge that spans a wooded ravine and provides a scenic overlook on the Catawba.

17 Geitner-Rotary Park
www.hickorygov.com/egov/apps/locations/facilities.egov?fromLink= ● Bikeway to Hickory City and Glenn Hilton parks; walking and nature trails along Lake Hickory.

18 Glenn Hilton Park
www.hickorygov.com/egov/apps/locations/facilities.egov?fromLink= ● Features a 150-yard boardwalk into a wooded wetland area.

19 Lake Norman State Park
www.ncparks.gov/Visit/parks/lano/main.php ● 1,548 acres ● 19 miles of hiking trails; 13 miles of biking trails.

20 Ramsey Creek Park
www.charmeck.org/mecklenburg/county/ParkandRec/Facilities/Pages/home.aspx ● 43 acres ● Waterfront park on Lake Norman with bike and nature trails.

21 Riverbend Park
www.catawbacountync.gov/depts/parks/rbndmain.asp ● 450 acres ● 12 miles of hiking trails; 7.8 miles of biking trails along the Catawba River with wheelchair-accessible river observation platform.

22 South Mountains State Park
www.ncparks.gov/Visit/parks/somo/main.php ● 15,865 acres ● 40.4 miles of hiking trails (.74-mi Hemlock Nature Trail loop along Jacob Fork River is wheelchair-accessible); 18 miles of biking trails.

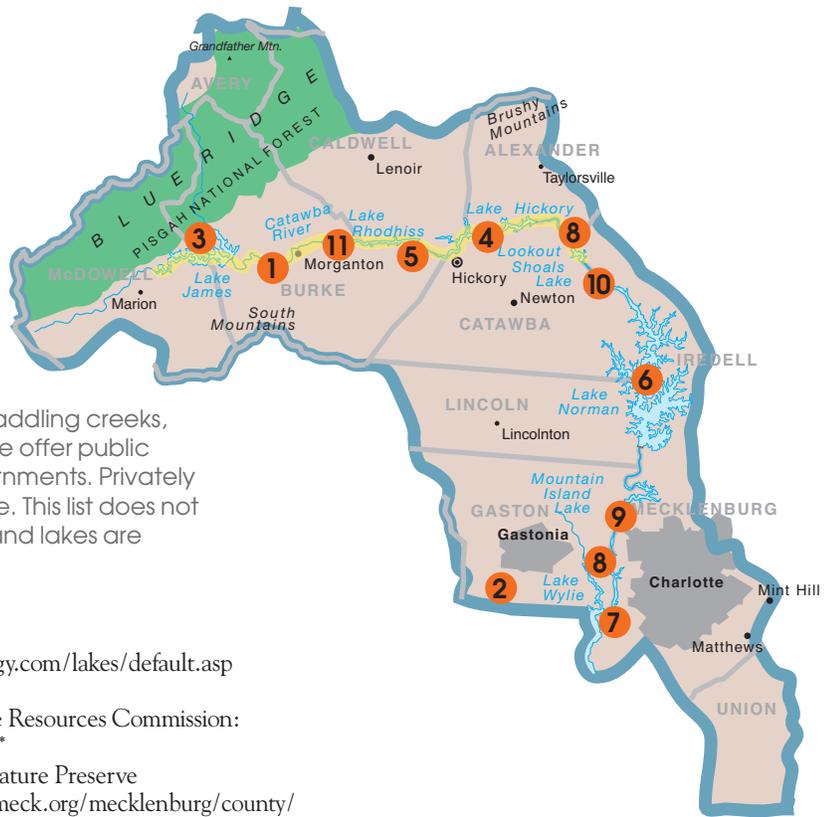
♿ = some trails designated as wheelchair accessible

PADDLING



in the Catawba River Basin

The Catawba 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 Catawba River Greenway Park

www.ci.morganton.nc.us/ ● Canoe launch is part of the Upper Catawba River Trail.

2 Crowders Mountain State Park

www.ncparks.gov ● 9-acre lake within park. Rental canoes only.

3 Lake James

www.duke-energy.com/lakes/default.asp

- 6,812 acres
- N.C. Wildlife Resources Commission: 2 access areas*
- Lake James State Park (www.ncparks.gov): 2 access areas

4 Lake Hickory

www.duke-energy.com/lakes/default.asp

- 4,223 acres
- N.C. Wildlife Resources Commission: 5 access areas*
- River Bend Park (www.catawbacountync.gov/depts/parks/rbndmain.asp)
- Geitner-Rotary Park (www.hickorygov.com/recreation)
- Glenn C. Hilton Park (www.hickorygov.com/recreation)

5 Lake Rhodhiss

www.duke-energy.com/lakes/default.asp

- 3,060 acres
- N.C. Wildlife Resources Commission: 4 access areas*

6 Lake Norman

www.duke-energy.com/lakes/default.asp

- 32,475 acres
- N.C. Wildlife Resources Commission: 6 access areas*
- Lake Norman State Park (www.ncparks.gov)—pedal boats and canoe rentals available.
- Ramsey Creek Park (<http://charmec.org/mecklenburg/county/ParkandRec/Parks/Pages/default.aspx>)
- Blythe Landing (<http://charmec.org/mecklenburg/county/ParkandRec/Parks/Pages/default.aspx>)

7 Lake Wylie

www.duke-energy.com/lakes/default.asp

- 13,443 acres
- N.C. Wildlife Resources Commission: 1 access area*
- McDowell Nature Preserve (<http://charmec.org/mecklenburg/county/ParkandRec/Parks/Pages/default.aspx>)

8 River Street Park

www.mtholly.us/departments/parks-recreation/

- Canoe launch on Dutchman's Creek.

9 Mountain Island Lake

www.duke-energy.com/lakes/default.asp

- 3,281 acres
- N.C. Wildlife Resources Commission: 1 access area*
- Mountain Island Park (www.ci.mount-holly.nc.us/parks/places.htm)—canoe launch to Catawba below Mountain Island Lake Dam.

10 Lookout Shoals Lake

www.duke-energy.com/lakes/default.asp

- 1,305 acres
- N.C. Wildlife Resources Commission: 2 access areas*

11 Upper Catawba River Trail

(highlighted in yellow) An 82-mile route for canoes, kayaks and other non-motorized boats, this trail is an easy paddle suitable for beginners. There are 24 access points and four portages along the route, which stretches from Lake James to Lookout Shoals Lake. The trail begins at the N.C. Wildlife Resources Commission's Black Bear Access on Lake James in McDowell County and ends at the Lake Lookout Shoals Access in Catawba County. For more information or a map of the trail, visit www.catawbariverkeeper.org.

*For detailed directions to N.C. Wildlife Resources Commission boating access areas, visit www.ncwildlife.org/ and click on "Boating/Waterways," then "Maps/Location."

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



WHERE SHOULD I GO



KEN TAYLOR, NCWRC

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

- Blue Planet Water Environmental Center
- Carolina Raptor Center
- Catawba Science Center
- Central Piedmont Community College, Center for Sustainability
- Crowders Mountain State Park
- Daniel Stowe Botanical Garden
- Discovery Place
- EnergyExplorium
- Grandfather Mountain State Park
- Grandfather Mountain Stewardship Foundation
- Lake James State Park
- Lake Norman State Park
- Latta Plantation Nature Preserve
- McDowell Nature Center
- Mountain Island Educational State Forest (not yet open to public)
- The Charlotte Nature Museum
- Schiele Museum of Natural History and Planetarium
- South Mountains State Park
- Tuttle Educational State Forest
- Wing Haven Garden and Bird Sanctuary
- YMCA Camp Thunderbird

For more information about Environmental Education Centers in North Carolina, call the Office of Environmental Education and Public Affairs at (800) 482-8724, or check out the 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 Catawba River Basin. The contacts listed below can help you do just that.

Catawba Basinwide Plan*

<http://portal.ncdenr.org/web/wq/ps/bpu/basin/catawba>
(919) 807-6447

Catawba Valley Heritage Alliance

www.heritagealliance.org
(828) 464-0405

Catawba Lands Conservancy

www.catawbalands.org/
(704) 342-3330

Catawba RiverKeeper Foundation

www.catawbariverkeeper.org/
(704) 679-9494

Exploring Joara Foundation

<http://joarafoundation.org/>

Friends of Crowders Mountain State Park

www.friendsofcrowdersmountain.org

Friends of Wilson Creek

www.friendsofwilsoncreek.org
(828) 759-0005

N.C. Division of Soil and Water Conservation

<http://portal.ncdenr.org/web/swc/>
(919) 733-2302

North Carolina Stream Watch

www.ncwater.org/Education_and_Technical_Assistance/Stream_Watch/
(919) 715-5433

SWIM (Surface Water Improvement and Management)

<http://charmack.org/stormwater/regulations/Pages/WhatareSWIMBuffers.aspx>

Western North Carolina Alliance

www.wnca.org/portal1/

**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, call the N.C. Office of Environmental Education and Public Affairs at (800) 482-8724, or order online at www.eenorthcarolina.org.

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