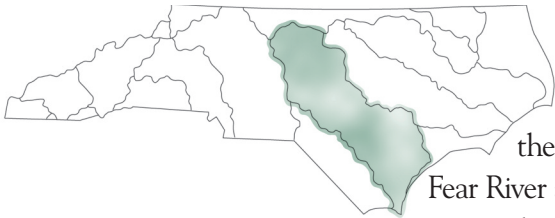


CAPE FEAR RIVER BASIN

The 200-mile Cape Fear River is the main tributary and namesake of the state's largest river basin. It is the only river in North Carolina that flows directly into the ocean.



COURTESY OF N.C. ARCHIVES AND HISTORY



Historic steamboat

The river draws its name from the treacherous offshore shoals (dubbed the “Cape of Feare” by early mariners). The shoals stretch for miles into the Atlantic Ocean from the river’s mouth. The Cape Fear River and its tributaries were important pathways for early commerce through the historic ports of Brunswick, Charlestown and Wilmington. In the mid-1800s, the Cape Fear was an outlet for the commercial products of more than 28 counties. River trade extended up to Fayetteville through a series of three locks and dams that raised the water level. Throughout the 19th century, shallow-draft steamboats called at more than 100 local landings between Fayetteville and Wilmington.

The Cape Fear River Basin is one of four river basins completely contained within North Carolina’s borders. The headwaters (origin) of the basin are the Deep and Haw rivers. These rivers converge in Chatham County just below B. Everett Jordan Dam to form the Cape Fear River. The river ends as a 35-mile-long coastal estuary



profile:

Total miles of streams and rivers: 6,584

Total acres of lakes: 34,796

Total acres of estuary: 24,472

Municipalities within basin: 113

Counties within basin: 26

Size: 9,164 square miles

Population: 2,072,305 (2010 U.S. Census)

An oil tanker travels up the Cape Fear River 15 miles below Wilmington.

KEN TAYLOR, WILDLIFE IMAGES



BREAKING DOWN BARRIERS

Three lock-and-dam structures on the lower Cape Fear River once allowed barges and large boats to navigate waters that would otherwise be too shallow. As a vessel traveled upriver, gates would open and close to release more water and allow passage. These structures eliminated 160 miles of the river from the migration routes of shad, striped bass, sturgeon and

other *anadromous* fish—ocean-dwelling species that swim up into freshwater streams to reproduce. Today the locks are no longer operated for navigation but remain an obstacle to these fish, including the shortnose sturgeon, which is on the Endangered Species List. State and federal fisheries agencies are pursuing the removal of the dams so that migratory fish can return to their historic spawning grounds in the upper Cape Fear River Basin. Though the dams were not designed for water supply, cities such as Wilmington and Fayetteville draw water from the impoundments. Fisheries officials hope to work in partnership with municipalities and citizen groups to simultaneously satisfy water-supply needs and re-open routes for migratory fish species.

EDSEL L. DANIEL



A lock and dam on the Cape Fear River near Elizabethtown

that is an important nursery area for juvenile fish, crabs and shrimp. Large industries lining the lower Cape Fear make the basin North Carolina's most industrialized. The basin also contains one-fifth of the state's population. Major tributaries include the Black River, which flows into the Cape Fear River in Pender County, and the Northeast Cape Fear River, which flows into the Cape Fear at Wilmington. These are both "blackwater" streams that drain the acidic soils of hardwood swamps.

Barrels of naval stores line the docks at Eagle Island, with Wilmington waterfront in background.

COURTESY OF N.C. ARCHIVES AND HISTORY



WILLIAM VINAL, CAPE FEAR RIVER WATCH

Hundreds of turpentine distilleries once dotted the historically vast longleaf pine forests of the region. The products of these trees—tar, pitch, turpentine and rosin—distinguished Wilmington as the world's leading exporter of naval stores in the 18th and 19th centuries.

Many different aquatic ecosystems in the Cape Fear River Basin support at least 95 species of commercial and recreational fish. Estuaries, blackwater rivers and rocky streams in the basin support 42 rare aquatic species. The Cape Fear shiner, a fish that is federally listed as endangered, has been found nowhere in the world except the Cape Fear River Basin. Other endangered species include the shortnose sturgeon,



A little angler casts a line.



Greensboro skyline

COURTESY OF THE N.C. DIVISION OF TOURISM, FILM AND SPORTS DEVELOPMENT

the red-cockaded woodpecker, the Saint Francis' satyr (a butterfly) and the West Indian manatee, a visitor to coastal estuaries. The American alligator and the loggerhead sea turtle are listed nationally as threatened species, meaning they are at risk of becoming endangered.

The basin has 33 reservoirs, including B. Everett Jordan Reservoir ("Jordan Lake"), the largest lake in the basin at 46,768 acres. Constructed in the 1970s, it is the main source of drinking water for the town of Cary and a major recreational spot for the fast-growing Triangle region. The most populated regions of the basin are in and near the Triad area (Greensboro-High Point), the Durham-Chapel Hill area, Fayetteville and Wilmington. The 26 counties contained within or overlapping the borders of the Cape Fear River Basin are expected to grow in population from 3 million to about 5 million over the next 20 years.

A Scarce Minnow

The Cape Fear shiner is a small minnow (rarely exceeding 2 inches) that is federally listed as endangered and also is endemic (found nowhere else) to the Cape Fear River Basin. It lives in shallow, rocky shoals within main river channels only in sections of the Deep, Haw and Rocky rivers. During spring spawning season, the males' gold color intensifies and females take on a silvery cast. Dam construction in the Cape Fear River Basin has most significantly affected shiner populations by flooding the fish's habitat. Changes in flow regulation could further threaten the few remaining populations of this species.

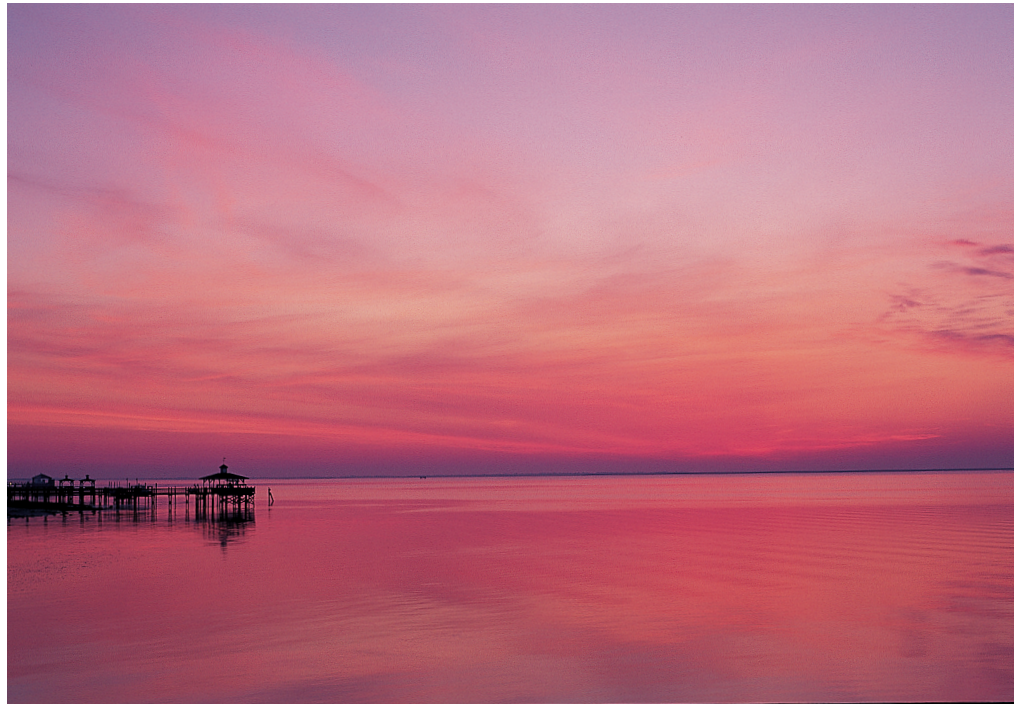


The Cape Fear shiner is a small, endangered minnow that is unique to the Cape Fear River Basin.

KEN TAYLOR, NCWRC



CHARLES BRASWELL JR.



CHARLES BRASWELL JR.

Large-scale livestock operations also compete for the region’s natural resources—the basin contains the most swine of any North Carolina river basin (58 percent of the state’s total hog population). Growth in human population and livestock numbers can stress aquatic systems because so much polluted runoff washes into streams and rivers.

Nesting brown pelicans (left); sunrise casts a rosy glow on the Cape Fear River at Southport (above).

Fertilizers and animal waste in runoff—from lawns, urban developed areas, farm fields and livestock operations—increases the flow of nutrients (such as nitrogen and phosphorus) into nearby waters. These nutrients can stimulate algae growth and decrease the amount of oxygen that is available in the water for aquatic animals. Such conditions can cause fish kills and the loss of other vital aquatic species. Both Jordan Lake and the Haw River are designated by the state as “nutrient sensitive waters.” The state placed stricter limits on the amounts of nitrogen and phosphorus that wastewater treatment plants can discharge into these waters.

The Cape Fear estuary has experienced fewer instances of nutrient-related algae blooms and fish kills than waters of the adjacent Neuse River Basin. Both regions, however, face similar pressures caused by nonpoint source pollution (polluted runoff from land). For example, stormwater runoff makes the water unsuitable for various aquatic species. Cities and towns throughout the river basin are developing strategies to reduce and treat runoff.

The charming Wilmington waterfront



JOE SWIFT

As population and industry in the watershed continue to increase, conservation groups, municipalities and other stakeholders are cooperating to manage growth, monitor water quality, restore wetlands and protect the other valuable resources of the Cape Fear River Basin. There are many opportunities for people to get involved with grassroots efforts to protect community creeks, streams and rivers. (See the list of contacts on the back of this brochure.) Individuals can also help by managing the quality and quantity of runoff by reducing the use of fertilizers, pesticides and other chemicals and controlling erosion on their properties.

CHARLES BRASWELL JR.



Old pier on estuary, Bald Head Island, N.C. (above); fishing on the Cape Fear (right).

The least bittern sways and points its bill upward to camouflage its streaked body among marsh grasses.



NCWRC



EDSEL L. DANIEL

State of North Carolina: Governor Pat McCrory • **North Carolina Department of Environment and Natural Resources:** Secretary John E. Skvarla, III • **Office of Environmental Education and Public Affairs:** Program Manager Lisa Tolley; Project Manager Ian Brown • Editor Carla Burgess • Designer Kimberly KC Schott, Red Gate Design • *Special Thanks* North Carolina Wildlife Resources Commission, North Carolina Division of Water Quality and North Carolina Natural Heritage Program • **Date:** 2013 • 5,500 copies of this public document were printed at a cost of \$1,324.12 or 0.241 per copy. • **This publication was funded through a Walmart Stormwater Compliance Grant.**

Printed on recycled paper 

HIKING & BIKING

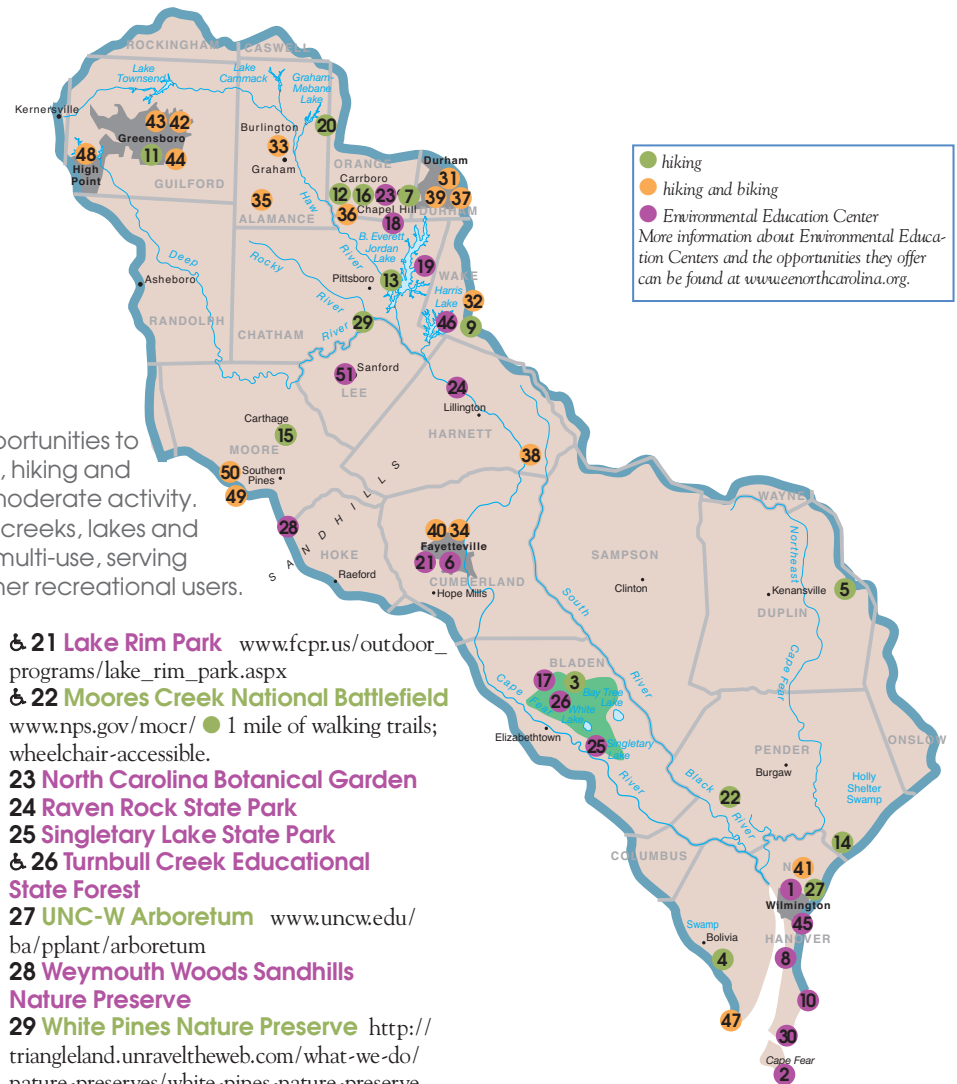


in the Cape Fear River Basin

The Cape Fear River Basin offers many opportunities to enjoy and explore nature through walking, hiking and biking. This list includes places for easy to moderate activity. Many sites include views of streams, rivers, creeks, lakes and wetlands. Remember that some trails are multi-use, serving pedestrians, bicyclists, equestrians and other recreational users.

● HIKING ●

- 1 Airlie Gardens**
- 2 Bald Head Woods Coastal Reserve**
www.nccoastalreserve.net/
- 3 Bladen Lakes State Forest** <http://ncforestservice.gov/> ● 33,017 acres ● 150 miles of multi-use roads.
- 4 Boiling Spring Lakes Nature Preserve**
www.nature.org ● 6,157 acres ● 2-mile nature trail.
- 5 Cabin Lake County Park** www.duplincountync.com/governmentOffices/parksRecreation.html ● 2.2 mile trail around lake and through park
- 6 Cape Fear Botanical Garden**
- 7 Cane Creek Reservoir** www.owasa.org/whatwedo/recreation.aspx ● Nature trail below dam.
- 8 Carolina Beach State Park**
- 9 Carroll Howard Johnson Environmental Education Park** www.fuquay-varina.org/departments-and-services/parks-recreation-and-cultural-resources/parks/ ● 28 acres ● 2 miles of interpretive nature trails.
- 10 Fort Fisher State Recreation Area**
www.ncparks.gov/Visit/parks/fofi/main.php
- 11 Greensboro Public Gardens**
<http://greensborobeautiful.org/gardens/> ● 2.5 miles of trails; wheelchair-accessible.
- 12 Hank Anderson Community Park**
www.carrboro.com/parks.html ● 55 acres ● .4-mile trail.
- 13 Haw Slopes State Natural Area**
www.triangleland.org/ ● 1,022 acres
- 14 Holly Shelter Game Land** www.nature.org/ourinitiatives/regions/northamerica/unitedstates/northcarolina/ ● 75,120 acres
- 15 James Goodwin Forest** <http://cnr.ncsu.edu/fer/dept> ● 1,169 acres
- 16 Johnston Mill Nature Preserve**
www.triangleland.org/what-we-do/nature-preserves/johnston-mill-nature-preserve ● 296 acres ● .5 miles of trails.
- 17 Jones Lake State Park**
- 18 Jordan Lake Educational State Forest**
- 19 Jordan Lake State Recreation Area**
- 20 Lake Michael Park** www.cityofmebane.com/lakemichaelpark.asp ● 200 acres ● 1.5 miles of nature trails.



● hiking
● hiking and biking
● Environmental Education Center
More information about Environmental Education Centers and the opportunities they offer can be found at www.eenorthcarolina.org.

- 21 Lake Rim Park** www.fcpr.us/outdoor_programs/lake_rim_park.aspx
- 22 Moores Creek National Battlefield**
www.nps.gov/mocr/ ● 1 mile of walking trails; wheelchair-accessible.
- 23 North Carolina Botanical Garden**
- 24 Raven Rock State Park**
- 25 Singletary Lake State Park**
- 26 Turnbull Creek Educational State Forest**
- 27 UNC-W Arboretum** www.uncw.edu/ba/plant/arboretum
- 28 Weymouth Woods Sandhills Nature Preserve**
- 29 White Pines Nature Preserve** <http://triangleland.unraveltheweb.com/what-we-do/nature-preserves/white-pines-nature-preserve> ● 275 acres ● 3 miles of trails.
- 30 Zeke's Island Coastal Reserve**
www.nccoastalreserve.net

● HIKING and BIKING ●

- 31 American Tobacco Trail** www.triangletrails.org/ATTHM ● Planned 22-mile rails-to-trails project.
- 32 Bass Lake Park** www.hollyspringsnc.us/index.aspx?nid=320 ● 20 acres ● 1.25 miles of wheelchair-accessible trails.
- 33 Burlington Parks** www.burlingtonnc.gov
- 34 Cape Fear River Trail** www.fcpr.us/cape_fear_river_trail.aspx ● 4-mile, wheelchair-accessible trail.
- 35 Cedarock Park** www.alamance-nc.com/ ● 414 acres ● 4 miles of nature trails and 1.5-mile bike trail; .5-mile wheelchair-accessible trail.
- 36 Chapel Hill Parks/Greenways**
<http://chapelhillparks.org/> ● 11 miles of trails; some wheelchair-accessible.
- 37 Duke Forest** www.dukeforest.duke.edu/ ● 7,050 acres ● 30 miles of paved access roads.
- 38 Dunn-Erwin Trail** www.harnett.org/health/physical-910.asp ● 5.3-mile trail crosses Black River.
- 39 Durham Greenway Trails** www.bikewalkdurham.org/ ● 14 miles of trails.
- 40 Fayetteville Parks** www.fcpr.us/
- 41 Greenfield Lake** www.capefearriverwatch.org/education/greenfield-lake ● 5 mile path around 90 acre lake.

- 42 Greensboro Watershed Trails**
www.greensboro-nc.gov/index.aspx?page=1372 ● 50 miles of trails around city lakes.
- 43 Guilford Courthouse Battlefield Trail**
www.nps.gov/guco/index.htm ● 2.5-mile trail.
- 44 Hagan-Stone Park** <http://haganstone.guilfordparks.com/> ● 3409 acres ● 8.2 miles of trails.
- 45 Halyburton Park**
- 46 Harris Lake Park**
- 47 Oak Island Nature Center/ Southport Paths and Greenways** www.oakislandsouthport.com/PageManager/Default.aspx/PageID=551303&NF=1
- 48 Piedmont Environmental Center: Bicentennial Greenway** www.highpointnc.gov/pr/greenway.cfm ● 9.5-mile trail; wheelchair-accessible.
Piedmont Environmental Center Preserve www.highpointnc.gov/pr/piedmont_environmental_center.cfm ● 376 acres ● includes Bicentennial Greenway.
- 49 Rassier Wicker Park** www.villageofpinehurst.org/ ● 103 acres ● .5-mile, wheelchair-accessible trail.
- 50 Reservoir Park/Southern Pines Greenways** www.southernpines.net/Recreation/Parks.aspx ● 13 miles of trails and greenways; wheelchair-accessible.
- 51 San-Lee Environmental Education and Recreation Park**

♿ = some trails designated as wheelchair accessible

PADDLING



in the Cape Fear River Basin

The Cape Fear River Basin offers many opportunities for paddling creeks, ponds, streams, rivers, lakes and estuaries. 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. These trails and lakes are suitable for easy to moderate paddling.

1 Bald Head Woods Coastal Reserve*

www.nccoastalreserve.net/

2 B. Everett Jordan Lake*

www.ncparks.gov/Visit/parks/jord/main.php
● 46,768 acres ● 16 public boat ramps.

3 Bass Lake

www.hollyspringsnc.us/index.aspx?nid=320
● 80 acres ● Canoe and boat rental available.

4 Black River*

<http://www.nature.org>

5 Boiling Spring Lakes

(910) 845-3693

6 Bynum Canoe Access (Haw River)

www.triangleland.org/what-we-do/page/lower-haw-state-natural-area

7 Cabin Lake

<http://www.duplincountync.com/qualityOfLife/recreation.html> ● 69 acres

8 Cape Fear River Paddle Trail*

(highlighted in yellow above) www.ncsu.edu/paddletrails/southerncoast/sc10.html ● 147-mile trail from Fayetteville to Southport. For a map, call (910) 395-4553.

9 Cane Creek Reservoir

www.owasa.org/whatwedo/recreation.aspx
● 540 acres ● Boats on car tops only; no trailers.

10 City Lake*

www.highpointnc.gov/pr/city_lake_park.cfm
● 340 acres

11 Deep River via McIver Landing

www.triangleland.org/what-we-do/nature-preserves/mciver-landing

12 Glenville Lake at Mazarick Park

www.fcpr.us/parks.aspx ● 26 acres

13 Graham-Mebane Lake*

www.grahamrecreationandparks.com/Default.aspx?tabid=75 ● 650 acres

14 Greenfield Lake

www.capefearriverwatch.org/education/greenfield-lake ● 90 acres

15 Harris Lake*

www.wakegov.com/parks/harrislake/Pages/default.aspx ● 4,100 acres ● Boats on car tops only; no trailers.

16 Haw River Trail

(highlighted in yellow above) www.thehaw.org/
● 110-mile trail from Greensboro to Jordan Lake.

17 Jones Lake

www.ncparks.gov/Visit/parks/jone/main.php
● 224 acres

18 Lake Brandt

www.greensboro-nc.gov/index.aspx?page=1310 ● 816 acres

19 Lake Higgins

www.greensboro-nc.gov/index.aspx?page=1310 ● 226 acres

20 Lake Mackintosh

<http://burlingtonnc.gov/index.aspx?NID=245> ● 1,100 acres

21 Lake Michael*

www.cityofmebane.com/lakemichaelpark.asp
● 59 acres

22 Lake Reidsville

www.ci.reidsville.nc.us/government/lake_reidsville/index/index.php ● 750 acres

23 Lake Rim*

www.fcpr.us/outdoor_programs/lake_rim_park.aspx ● 50 acres

24 Lake Townsend

www.greensboro-nc.gov/index.aspx?page=1310 ● 1,542 acres

25 Oak Hollow Lake*

www.highpointnc.gov/pr/oak_hollow_festival_park.cfm ● (336) 883-3494 ● 800 acres

26 Ramseur Lake*

www.townoframseur.org/parks_recreation.htm ● (336) 824-4646 ● 127 acres

27 Reservoir Lake

www.southernpines.net/Recreation/Parks.aspx
● 95 acres

28 San-Lee Environmental Education and Recreation Park

www.leecountync.gov/Departments/SanLeePark.aspx ● Two 10-acre lakes

29 Stoney Creek/Old City Lake*

<http://burlingtonnc.gov/index.aspx?NID=218> ● 140 acres

30 Sutton Lake*

● 1,100 acres

31 Horseshoe Lake/Suggs Mill Pond Game Land

www.nature.org/ourinitiatives/regions/northamerica/unitedstates/northcarolina/index.htm
● 600 acres

32 University Lake*

www.owasa.org/whatwedo/recreation.aspx
● 213 acres

33 Zeke's Island National Estuarine Research Reserve.

www.nccoastalreserve.net/

*Denotes site with public access points maintained by the N.C. Wildlife Resources Commission. For directions to boat ramps, visit www.ncwildlife.org and click on Boating/Waterways, then Maps/Location.

▶ For more information about trails along coastal creeks, rivers and the Intracoastal Waterway, visit www.ncsu.edu/paddletrails.



WHERE SHOULD I GO



COURTESY OF THE N.C. DIVISION OF TOURISM, FILM AND SPORTS DEVELOPMENT

Raven Rock State Park

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

- Agape Center for Environmental Education
- Airlie Gardens
- American Livestock Breeds Conservancy
- Betsy-Jeff Penn 4-H Educational Center
- Cape Fear Botanical Garden
- Cape Fear Museum of History and Science
- Cape Fear River Watch Inc.
- Carolina Beach State Park
- Center for Education, Imagination and the Natural World at Timberlake Farm
- Children's Museum of Wilmington
- Clark Park Nature Center
- Frank Sharpe Jr. Wildlife Education Center
- Halyburton Park
- Harris Energy and Environmental Center/Harris Plant Visitors Center
- Harris Lake County Park
- Haw River Program/Haw River State Park
- Jones Lake State Park
- Jordan Lake Educational State Forest
- Jordan Lake State Recreation Area
- Jordan Lake Visitor Assistance Center
- Karen Beasley Sea Turtle Rescue and Rehabilitation Center
- Kathleen Clay Edwards Family Branch: Environmental Education Focus Library
- Lake Higgins Environmental Education Center
- Lake Rim Park
- Marine Quest: UNC-W Center for Marine Science
- Morehead Planetarium and Science Center
- Natural Science Center of Greensboro
- New Hanover County Arboretum
- North Carolina Aquarium at Fort Fisher
- North Carolina Botanical Garden
- North Carolina Coastal Reserve Program
- North Carolina Zoological Park
- Piedmont Biofuels
- Piedmont Environmental Center
- Public Works Commission Watershed Education Center
- Raven Rock State Park
- San-Lee Environmental Education and Recreation Park
- Screech Owl Farm School
- Singletary Lake State Park
- Turnbull Creek Educational State Forest
- Weymouth Woods – Sandhills Nature Preserve

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 Catawba 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 North Carolina Big Sweep.

Clean Water Management Trust Fund
www.cwmtf.net/

Cape Fear River Basinwide Plan*
<http://portal.ncdenr.org/web/wq/ps/bpu/basin/capefear>

Division of Water Quality, Stormwater and Runoff Pollution
www.ncstormwater.org/

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

North Carolina Big Sweep
www.ncbigsweep.org/

North Carolina Stream Watch
www.ncwater.org/Education_and_Technical_Assistance/Stream_Watch

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 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.