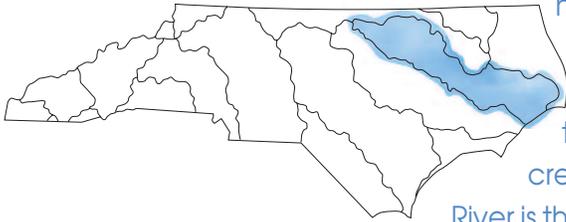


TAR-PAMLICO RIVER BASIN



The Tar River and Pamlico River are actually two ecologically distinct pieces of the same river. The 180-mile river rises as a freshwater stream (the Tar) in the Piedmont near Roxboro and changes to brackish water (the Pamlico) as it travels from Washington to the Pamlico Sound. Major tributaries in the upper basin are Swift, Fishing and Tranters creeks and Cokey Swamp. The 30-mile Pungo River is the main tributary in the lower basin.



U.S. FISH AND WILDLIFE SERVICE

Tar River Spiny mussel

The Tar-Pamlico River Basin is one of just four river basins contained entirely within North Carolina, and it is the third largest in the state. It is a diverse region with many valuable wetlands and creatures. The basin contains the state's largest natural lake, Mattamuskeet, likely a product of a gigantic fire that burned through the organic soils of peat bogs and left a shallow depression. The 40,000-acre lake, which is 18 miles long and 6 miles wide, is the showpiece of Mattamuskeet National Wildlife Refuge. The lake has one of the largest breeding populations of osprey in the state and is a major winter stopover for thousands of Canada geese, snow geese, whistling swans and ducks.

Two other national wildlife refuges in the basin, Pocosin Lakes and Swanquarter, combine with Mattamuskeet to create a haven for spectacular numbers of waterfowl. More than 80,000 tundra swans and snow geese spend the winter at Pungo Lake in Pocosin Lakes National Wildlife Refuge. An international panel of scientists has

Lake Mattamuskeet

GREATER HYDE COUNTY CHAMBER OF COMMERCE



profile:

Total miles of streams and rivers:
2,521

Total acres of lakes:
3,976

Total acres of estuary:
663,593

Counties within basin:
18

Size:
6,148 square miles

Population:
472,629
(2010 U.S. Census)

Safe Havens

The National Wildlife Refuge System is a national network of lands and waters for the conservation and management of fish, wildlife and plants and their habitats. The U.S. Fish and Wildlife Service manages the 150 million acre system, which includes more than 553 individual refuges, wetlands and special management areas.

LAKE
MATTAMUSKEET:
*Rhythm
of the
Swans*



U.S. FISH AND WILDLIFE SERVICE

Thousands of tundra swans migrate annually to winter in the shallow waters of Lake Mattamuskeet. Canada geese, snow geese, pintails, black ducks and mallards also flock to the lake during winter. In addition, the lake provides habitat for one of the largest breeding populations of osprey in North Carolina.

Neptune's Nursery

Estuaries are partially enclosed areas where freshwater from inland rivers mixes with salty water from the sea. Although influenced by tides, estuaries are generally protected from the full force of ocean waves, winds and storms. Estuaries are often referred to as nurseries because so many species of juvenile fish and shellfish rely on these sheltered, food-rich areas.

Blue crabs



MELISSA MCGAW, NCWRC

named Pocosin Lakes among the 50 most significant bird areas in the world. Swanquarter refuge contains extensive coastal marshes and a National Wilderness Area that host large concentrations of diving ducks, sea ducks, American black ducks, wading birds and shorebirds. Swanquarter and Juniper bays on the fringes of the refuge are designated by the state as Outstanding Resource Waters due to excellent water quality and exceptional ecological or recreational significance.

Seventeen rare freshwater mussel species live in waters of the upper basin. One of these, the federally endangered Tar River spiny mussel, is endemic to this region, which means it has been found nowhere else on earth. The spiny mussel lives in only a few short sections of the Tar River and its tributaries and one area in the Neuse River Basin. It is one of only three freshwater mussels in the world with spines. Other federally listed endangered species in the basin include the dwarf wedgemussel, the red-cockaded woodpecker and the West Indian manatee. The state further lists as endangered or threatened the American alligator, loggerhead sea turtle, peregrine falcon, bald eagle, gull-billed tern and piping plover. The endangered red wolf, which was reintroduced in the Alligator River National Wildlife Refuge in 1987, has expanded its range into the Pocosin Lakes refuge. Besides animal life, the basin is also home to the globally endangered Atlantic white cedar ecosystem. Several agencies are working together to restore an 18,000-acre bog at Pocosin Lakes with these trees, also known as junipers, and bald cypresses.

A gateway to the coast, the Tar-Pamlico River Basin feeds into a highly productive estuary that is a nursery for more than 90 percent of all the commercial seafood species caught in North Carolina. The Albemarle and Pamlico sounds comprise the second largest estuary system in the

United States. Blue crabs are an important fixture in the local economy. In the past, vast runs of river herring, shad, striped bass and sturgeon also contributed to the region's culture. These anadromous fish live in the ocean but swim up freshwater rivers to spawn and breed.

The region is also steeped in a rich tradition of farming. It contains the state's largest tobacco-producing county (Pitt) and the number one producer of corn, wheat and sorghum (Beaufort County).



Bald cypress "knees"

G.B. PARDUE

Unfortunately, the Pamlico River has been plagued with environmental problems. This region began to attract public concern in the 1980s. The excessive growth of algae and increasing numbers of diseased and dying fish began to suggest a decline in water quality. Many municipal treatment plants were discharging wastewater into rivers and streams. Runoff from nonpoint sources—such as farmland, timber operations and urban areas—also contributed pollution.

All of these sources increase levels of the nutrients nitrogen and phosphorus in the watershed. These nutrients can be beneficial to aquatic life in small amounts, but large amounts can contribute to excessive plant growth and low levels of dissolved oxygen in the water. Both of these situations can be harmful to fish and other aquatic life.

In 1989, the state called for measures to reduce nutrient pollution in the watershed. With public and private support, an association of point source dischargers—the Tar-Pamlico Basin Association—developed an innovative program to accomplish the reductions. They formed a coalition, and each municipality agreed to do the following: either reduce the nutrient levels in the wastewater discharged by its treatment plant or offset its share of pollution by investing in farming practices that reduce nutrient runoff in the basin by an equal or greater amount. This “nutrient trading” system, the only one of its kind in North Carolina, was one of the first such systems in the country.

The Pamlico Sound is the largest body of water behind barrier islands in the world. It covers more than 2,000 square miles.

Now new rules for reducing nutrient runoff are being implemented in the basin. One important rule requires that existing strips of trees and other plants along the edges of waterways be protected. In these buffer areas, the roots of plants prevent soil from eroding, and they help to filter out nutrients. Other rules provide guidelines for applying fertilizer and managing stormwater. For more information, visit the following website: <http://portal.ncdenr.org/web/wq/ps/bpu/about>.

Many communities and organizations are working to preserve and protect land and water quality in the basin. For more information, see the contacts on the back page.

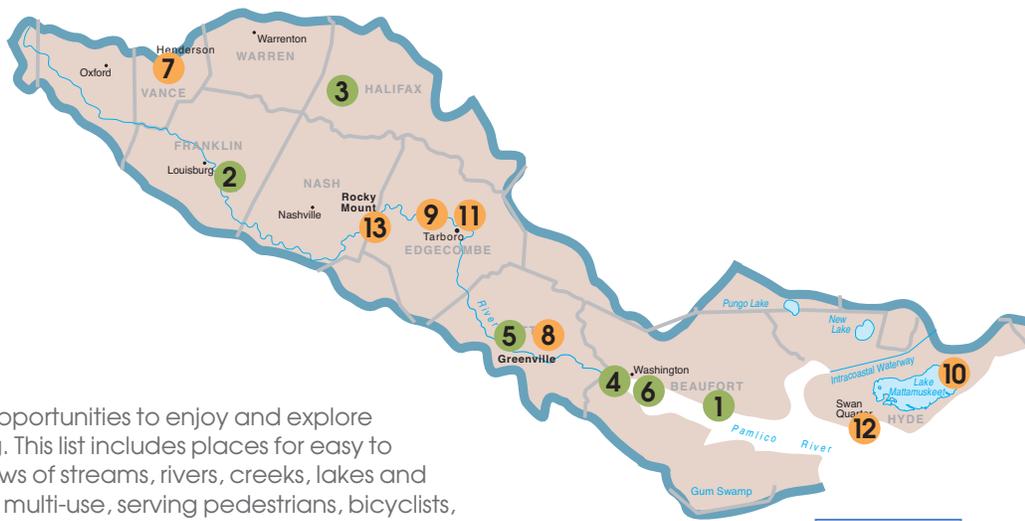
KEN TAYLOR, NCWRC



HIKING & BIKING



in the Tar-Pamlico River Basin



The Tar-Pamlico 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 Goose Creek State Park
www.ncparks.gov/Visit/parks/gocr/main.php ● 1,665 acres ● 8 miles of trails, including a wheelchair accessible boardwalk trail.

2 Joy LaRue Joyner Park
www.townoflouisburg.com/city-services/parks-and-recreation_facilities_joyner-park.aspx
 60+ acres ● 95 acres ● Nature trails wind through forested areas along the Tar River.

3 Medoc Mountain State Park
www.ncparks.gov/Visit/parks/memo/main.php
 ● 2,380 acres ● 10 miles of trails.

4 North Carolina Estuarium
www.partnershipforthesounds.org ● .75-mile boardwalk along Pamlico River.

5 River Park North
www.greenvillenc.gov/departments/rec_parks_dept/ ● 324 acres ● 1 mile of nature trails with 2.5 miles of connecting road.

6 Stewart Parkway
www.washington-nc.com/facilities ● .75-mile paved, wheelchair-accessible trail that includes a .4-mile wetland boardwalk on the Washington waterfront.

● **HIKING and BIKING** ●
7 Fox Pond Park
www.ci.henderson.nc.us/ ● 105 acres ● 2.5 miles of trails.

8 Green Mill Run Greenway
www.pittcountync.gov/depts/planning/cdwalk/pages/greenville.shtml ● 1.3-mile, wheelchair-accessible trail that will connect with the planned 2.9-mile South Tar Greenway.

9 Indian Lake Park
www.tarboro-nc.com/retirement+relocation+visitors/recreation ● 52 acres ● Three trails for walking and biking.

10 Mattamuskeef National Wildlife Refuge
www.fws.gov/mattamuskeef/ ● 50,180 acres ● Short nature trail at park headquarters, plus hiking and biking on refuge roads.

11 Princeville Heritage Trail
www.trailink.com ● 3-mile, wheelchair-accessible trail with views of the Tar River.

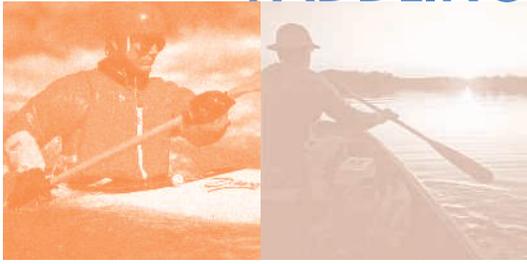
12 Swanquarter National Wildlife Refuge
www.fws.gov/swanquarter/ ● 16,411 acres ● 2-mile gravel refuge road.

13 Tar River Trail
www.rockymountnc.gov/parks/trails.html
 ● 3-mile paved path connects five city parks and includes a raised, 1,000-foot walkway through wetlands.

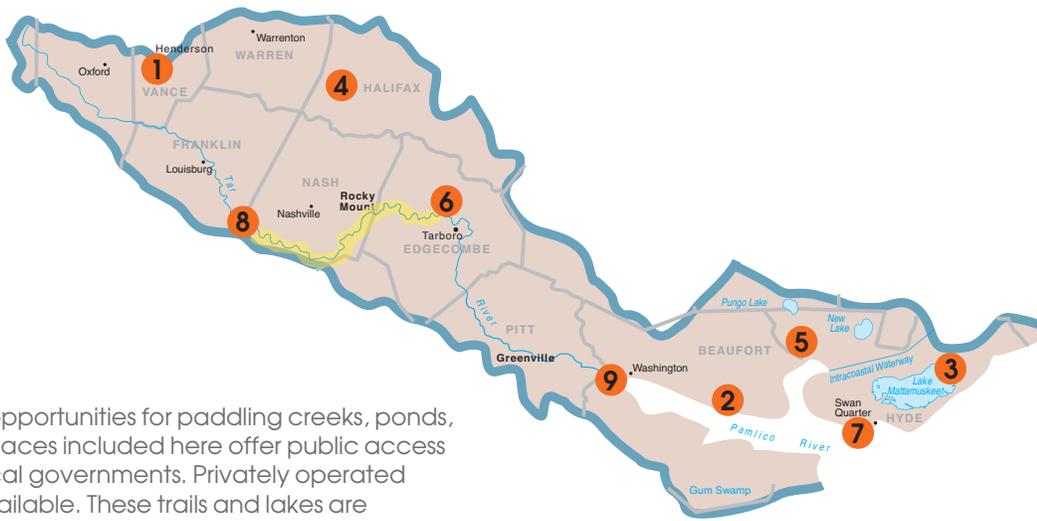
= some trails designated as wheelchair accessible



PADDLING



in the Tar-Pamlico River Basin



The Tar-Pamlico 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 Fox Pond

www.ci.henderson.nc.us/ ● 40 acres

2 Goose Creek State Park Trail*

www.ncparks.gov/Visit/parks/goctr/main.php
● 4-mile paddle trail.

3 Lake Mattamuskeet

www.fws.gov/mattamuskeet/ ● 40,000 acres
● 10.4-mile paddle trail.

4 Medoc Mountain State Park

www.ncparks.gov/Visit/parks/memo/main.php
● 2.5-mile stretch of Little Fishing Creek.

5 Pungo River*/Pungo River Trail

www.ncsu.edu/paddletrails/ ● 11-mile paddle trail.

6 Riverfront Park

www.tarboro-nc.com/retirement+relocation+visitors/recreation ● Access to the Tar River at Tarboro.

7 Swanquarter National Wildlife Refuge

www.fws.gov/swanquarter/ ● Access to Rose Bay and Pamlico Sound.

8 Tar River Paddle Trail

(highlighted in yellow) www.rockymountnc.gov/parks/trails.html ● 10 canoe access points connect more than 20 miles of the Tar River and Stony Creek.

9 Washington Waterfront

www.partnershipforthesounds.org/NorthCarolinaEstuarium.aspx ● Access to mouth of Runyon Creek on the Pamlico River at the city canoe launch and the N.C. Estuarium.

**Denotes site with public access areas 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 coastal plain paddle trails, visit www.ncpaddletrails.info.*





Tar River

KEN TAYLOR, NCWRC

WHERE SHOULD I GO ?

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

- A Time for Science Nature and Science Learning Center
- Aurora Fossil Museum
- Goose Creek State Park
- Medoc Mountain State Park
- The North Carolina Estuarium
- River Park North (Walter L. Stasavich Science and Nature Center)
- Rocky Mount Children’s Museum and Science Center
- Sylvan Heights Waterfowl Park

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, lakes and estuaries in the Tar-Pamlico 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.

Albemarle-Pamlico National Estuary Program
www.apnep.org/

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

Clean Water Management Trust Fund
www.cwmtf.net/

North Carolina Big Sweep
www.ncbigsweep.org/

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

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

Tar-Pamlico River Basinwide Plan*
<http://portal.ncdenr.org/web/wq/ps/bpu/basin/tarpamlico>

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.

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 \$1,289.50 or \$0.234 per copy. • **This publication was funded through a Walmart Stormwater Compliance Grant.**

Printed on recycled paper 