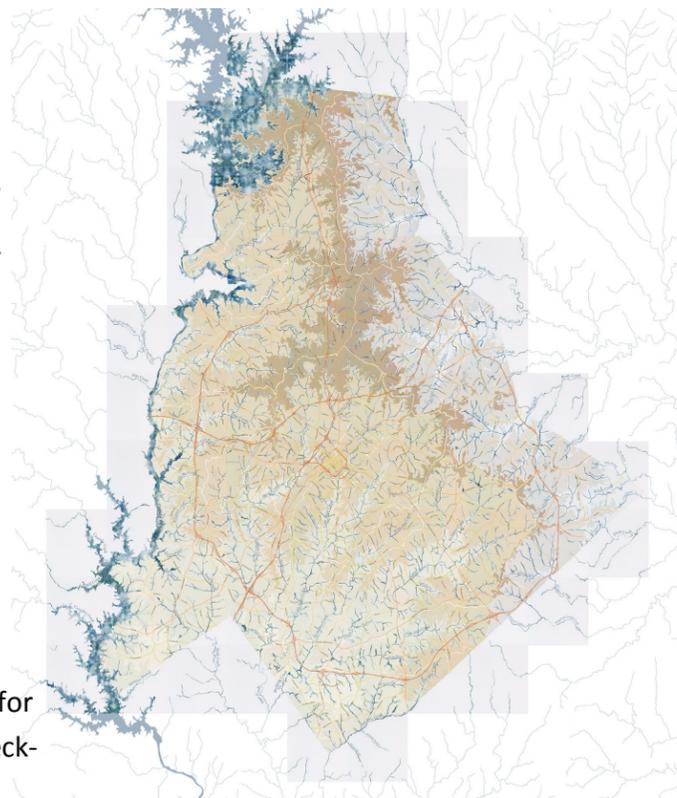


DID YOU KNOW?

- The creeks of Mecklenburg County are an essential part of the local storm drain system. The storm drain system is how rain water is drained off highways, streets and parking lots. Storm drains funnel rain water into pipes, which send the water directly into the creeks. Many people think storm water goes to a treatment plant, but in Charlotte it doesn't.
- Until the federal Clean Water Act in 1972, industries routinely piped contaminated factory wastewater into Charlotte creeks.
- Two-thirds of Mecklenburg County is in the Catawba River watershed, and the creeks flow into Lake Norman, Mountain Island Lake, Lake Wylie or other parts of the Catawba River.
- The eastern third of Mecklenburg County is in the Yadkin-Pee Dee watershed.
- Six creeks in Mecklenburg have a name that starts "Mc..." They are McAlpine, McCullough, McDowell, McIntyre, McKee and McMullen creeks. Their names reflect the Scots-Irish heritage of many of the early white settlers.
- A nationwide survey of the condition of small streams throughout the U.S. in 2004-05 found 42 percent of the stream miles were in poor biological condition and 28 percent in good condition.
- The most widespread problems for streams across the U.S. are nitrogen and phosphorus (called "nutrients"), sediments in the streambed, and activities that disturb the stream's banks such as construction, farming or removing vegetation.
- The excess nitrogen and phosphorus that pollute creeks can come from fertilizer on lawns and gardens, sewage treatment plants or leaking septic systems.
- Water from springs is cleaner than water in creeks and colder in the summertime.
- Groundwater can become contaminated when chemicals seep into the soil.



LEARN MORE

Visit KeepingWatch.org and click on "Explore Creeks" for stories, videos, maps and other information about Mecklenburg County's creeks.



The Autobell® Creek Challenge is funded by Autobell® Car Wash.

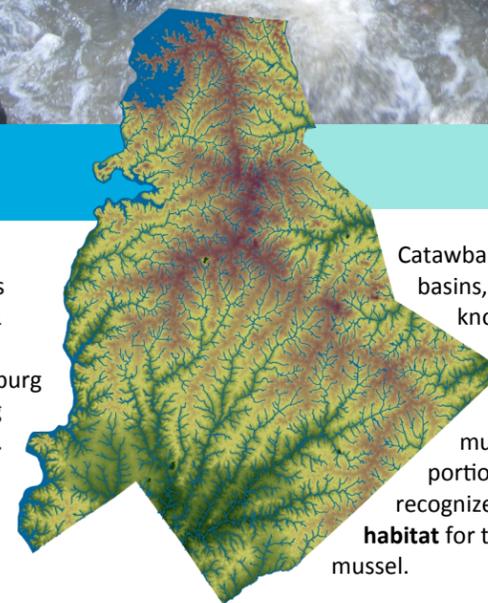
GOOSE CREEK



The Goose Creek watershed covers approximately 11 square miles in eastern Mecklenburg County, including parts of Mint Hill. It flows east into Union County and empties into the Yadkin River watershed.

One unusual thing about Goose Creek is that it's one of only a few places in the world where the Carolina heelsplitter is found. The heelsplitter is a species of freshwater mussel that's one of the rarest animals on Earth and is on the federal "endangered" list. That means it is threatened with **extinction**.

The Carolina heelsplitter likely got its name from the sharp valve edges that could cut into the foot of someone walking in the creek bed. This mussel was once widely found throughout the



Catawba and Pee Dee river basins, but now only six known populations exist. Goose Creek is one of those spots where the mussel is found, and portions of the creek are recognized as a **critical habitat** for the freshwater mussel.

Since mussels aren't very **mobile**, they are highly sensitive to pollutants found in residential or industrial areas, such as chlorine and ammonia. Also, projects that are intended to change the flow of creeks, such as dams or re-channeling, can destroy the places where the Carolina heelsplitter lives. Mecklenburg County environmental officials know the endangered mussel lives here, and the government has set rules to try to protect it from damage caused by construction and pollutants. But it isn't clear whether those efforts will save the mussel from extinction. A planned

highway, the Monroe Bypass, is downstream in Union County, and that project worries conservationists. So does a proposed shopping center, the Bridges at Mint Hill.

After the Civil War, rural communities of Mecklenburg County relied heavily on farming, especially cash crops like cotton. There are still several historic buildings in this watershed that are a reminder of agriculture's importance to those communities. Two of them are the John Calvin Wilson House and the Flow-Lee House, both built in the late 1800s. John Wilson, also known as "Smoking John," grew corn and cotton. However, after his son inherited the house, the farm shifted into the dairy industry. Thomas Jefferson Flow built the Flow-Lee House and later sold it to John Newton Lee and his family. In addition to owning three farms, the Lee family also operated a **grist mill** and a **cotton mill** in Mecklenburg County.

Another historic spot is Philadelphia

Presbyterian Church in Mint Hill, one of the first churches organized in Mecklenburg County.

Originally named Clear Creek Presbyterian Church, it was founded in 1770 in a log building on what's now Brief Road in the Clear Creek watershed. When the log building burned, the church moved 2 miles away. In 1826 it moved again to where it sits today on Bain School Road in the Goose Creek watershed.

Today, the majority of the watershed is still undeveloped, and the developed areas are mostly residential, with a population of 6,608. Among the residential communities are the town of Mint Hill and the neighborhoods of Olde Sycamore and Plantation Falls. But because the watershed is not heavily developed there aren't many prominent landmarks.

Key vocabulary

Cotton mill – A factory where cotton is spun into thread or yarn, or where cotton is woven into fabric.

Critical habitat – An area of land that is crucial to the survival of a particular threatened species.

Extinction – When all members of a particular group, such as a species of animal or plant, die out.

Grist mill – A water-powered mill used to grind corn into cornmeal or wheat into flour, typically crushing the grain between large stones.

Impaired – Weakened or damaged. Relating to water quality, it means the water is not suitable for the uses assigned to it.

Mobile – Able to move around easily.

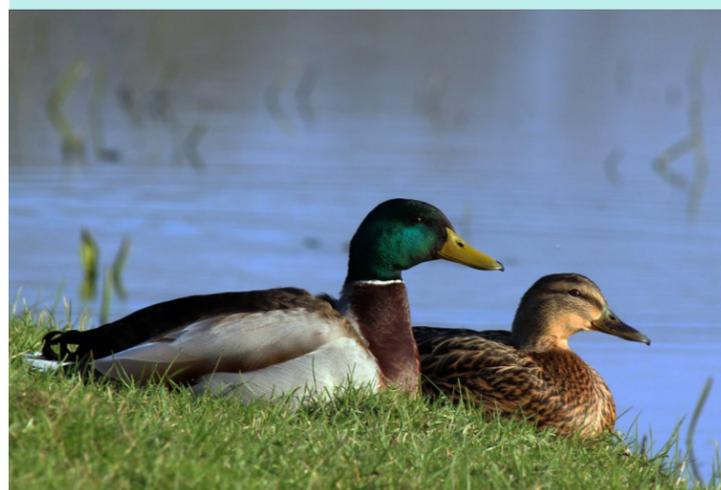
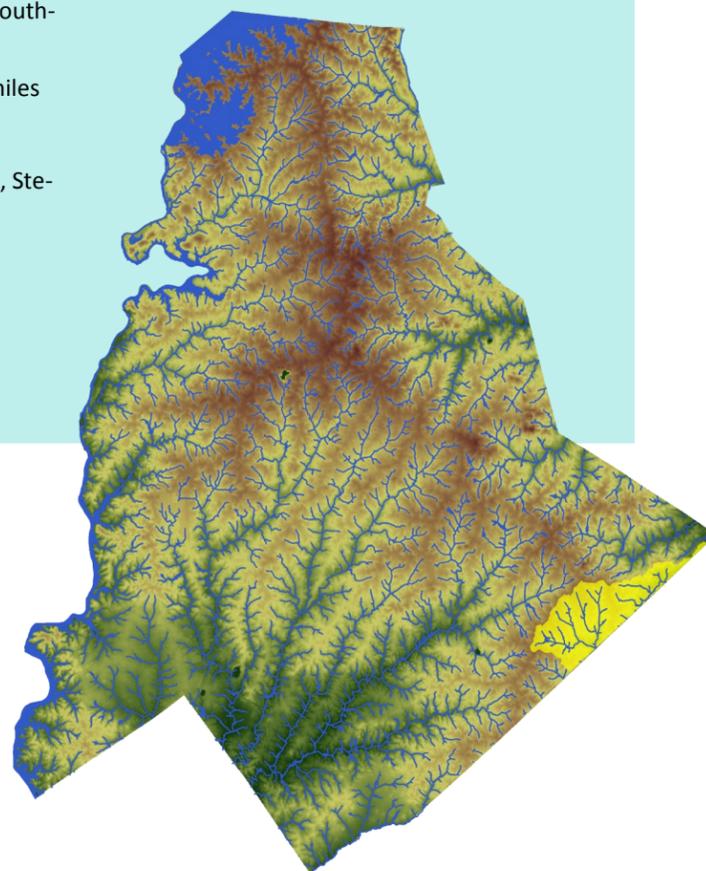
Perennial stream – Has water in it year-round.

There are approximately 15.9 miles of **perennial streams** in this watershed. The major tributaries of Goose Creek are Duck Creek, Stevens Creek and Stevens Creek Tributary. Of those, only Duck Creek is

considered **impaired**, due to a lack of diversity of aquatic insects. With the prospect of continuing development, more of Goose Creek's watershed may face the threat of pollution.

Profile

- **Location:** Southeastern edge of Mecklenburg County including south-eastern Mint Hill (zip codes: 28104, 28105, 28227)
- **Approximate land area in Mecklenburg County:** 11.23 square miles
- **Estimated population in 2010:** 6,608
- **Creeks and tributaries:** Goose Creek, Duck Creek, Stevens Creek, Stevens Creek Tributary
- **Drains into:** Yadkin-Pee Dee River watershed in Union County
- **Miles of perennial streams:** 15.913
- **Impaired streams:** Duck Creek from source to Goose Creek
- **Reason for impairment:** lack of diversity of aquatic insects



Duck Creek, a Goose Creek tributary, was likely named for wild ducks like these mallards. Photo: Sharp Photography

Fun facts

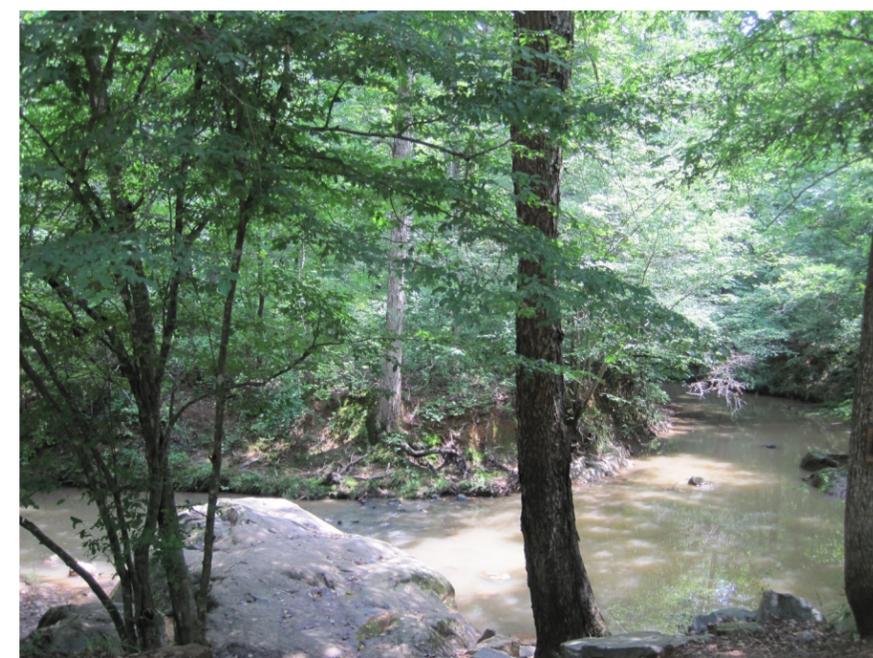
- Goose Creek is one of the few places that are home to the Carolina heelsplitter (*Lasmigona decorata*), a mussel on the federal "endangered" list. Portions of Goose Creek have been designated as critical habitat for the heelsplitter.
- Home to two of the six Mecklenburg creeks with names related to animals: Goose Creek and Duck Creek.

What's in the Goose Creek watershed?

- **Landmarks:** Stevens Creek Nature Preserve and Mint Hill Sports Complex, historic Philadelphia Presbyterian Church
- **Parks:** Mint Hill Park (Fairview Park)



Philadelphia Presbyterian Church. Photo: Jody Pressley



Muddy water like this (in a northeast Mecklenburg County creek), can cause sediment pollution. Photo: Nancy Pierce



Shell of the endangered Carolina heelsplitter. Photo: USFWS



2008 construction along Goose Creek. Photo: Nancy Pierce

What you can do to protect our creeks

- **Don't dump hazardous chemicals down drains.** Take them to a recycling center.
- **Don't dump yard waste in drains or creeks.** Bag, recycle or compost it.
- **Prevent soil erosion.** Plant trees and bushes along creek banks and in bare areas of the yard.
- **Scoop the poop.** Dog waste can pollute local creeks.
- **Use a car wash, not the driveway.**
- **Use fewer fertilizers and chemicals** in your yard. Don't apply chemicals 48 hours before a heavy rain.

- **Don't dump cooking grease and oil down the sink.** Grease clogs are the most common cause of sewage spills into Mecklenburg County creeks.
- **Report pollution, including soil erosion.** Call 311. To report online, or use the Water Watcher app visit <http://charmeck.org/stormwater/ReportPollution>
- **Reduce how much runoff leaves your property.** Plant trees, use rain barrels, limit the use of pavement and limit the use of pipes to send rainwater into storm drains.