STORMWATER SMART
PIEDMONT TRIAD REGIONAL COUNCIL

STREAM BUFFER BASICS

HEADWATERS HAW RIVER WATERSHED

North Carolina Watershed Brochure Series · January 1, 2021 · Piedmont Triad Regional Council · www.ptrc.org/stormwatersmart

WHAT TO KNOW

Headwaters Haw River is a vital water source that flows through numerous communities in the Piedmont Triad region of North Carolina. Stewards of the watershed need to know:

- How the Haw River connects to other waterways downstream
- Which pollutants affect its water quality
- What a healthy riparian buffer looks like, and how activities in these buffer zones are regulated and permitted

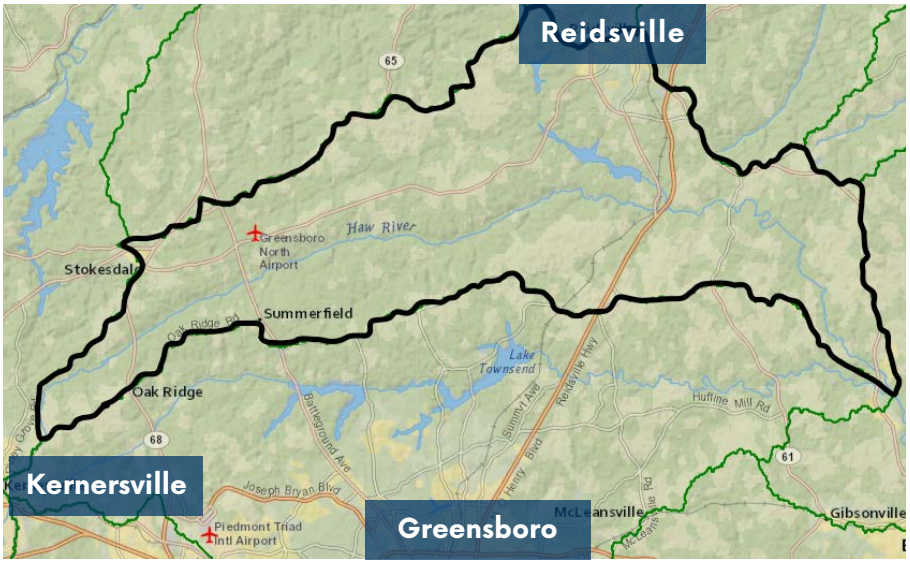
QUICK INFO

Area (sq miles)..... 188
Miles of Streams..... 186
# of Impaired Streams..... 8
Dominant Land Use.....Forest
Counties: Alamance, Caswell, Forsyth, Guilford, Rockingham

Data pulled from the Watershed Stewardship Network, NC DEQ "Know Your HUC", and modelmywatershed.org

WHERE IS IT?

The Headwaters Haw River watershed is located north of the city of Greensboro in the Piedmont Triad. As the name suggests, this watershed contains the headwaters of the Haw River, which originates in the far south-western corner, just north of Kernersville. The Haw River travels east across the watershed, until it eventually exits in the south-eastern corner. Its most significant tributary within the watershed is Troublesome Creek, which runs through Lake Reidsville before joining the Haw River. The Haw River later joins the Deep River to become the Cape Fear River, eventually flowing to the Atlantic Ocean. Headwaters Haw River is a sparsely populated area and one dominated by more natural, forested land.



HEADWATERS HAW RIVER WATER QUALITY

The water quality of Headwaters Haw River can be classified overall as fair. There are some sections that have no impairment listing, while others are listed as Category 5 impaired waters by the North Carolina Department of Environmental Quality (NCDEQ). There are also two waterbodies that require a Total Maximum Daily Load (TMDL) allocation: the Haw River and Troublesome Creek. TMDL's are management plans created to limit the discharge of specific pollutants into waterbodies that already have excessive pollution. The pollutants listed in the TMDL for the Haw River are turbidity and fecal coliform, whereas the Troublesome creek TMDL is for fecal coliform only.

SOIL AND SEDIMENT FROM DISTURBED LAND ARE THE #1 SOURCES OF POLLUTION IN NC WATERWAYS.

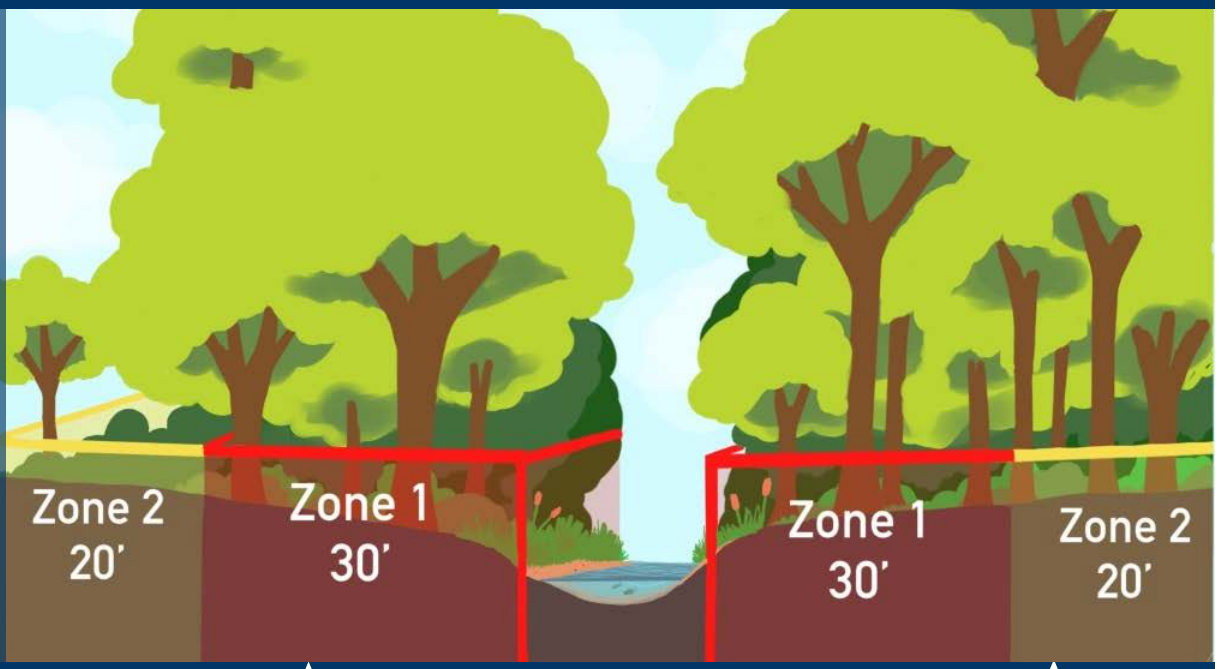
Storm systems carry the runoff from rain events to the nearest creek, untreated and unfiltered. Pollution that enters a storm drain ends up harming aquatic life and degrading water quality. If you see or smell noxious discharge at an outfall, or if you witness someone dumping anything into a storm drain, you can help stop the damage by calling 3-1-1 or your local stormwater department (see last page).

RIPARIAN BUFFER BENEFITS

A riparian stream buffer is an area running parallel alongside both sides of a protected stream, river, pond, or lake. Stream buffers not only filter pollutants, prevent erosion, and reduce flooding; they also provide habitats for a variety of animal species, many of whom use stream buffers like highways to travel within their range in search of food, water and shelter. Healthy vegetation provides a safe, shaded place to rest and reproduce.

NCDEQ STREAM BUFFER ZONES

Regulations are set by the North Carolina Department of Environmental Quality (NCDEQ). Permitting rules vary slightly depending on the watershed, but the general rule has the riparian buffer divided into Zone 1 and Zone 2; together totaling 50' of protective vegetation.



ZONE 1

Zone 1 extends from the top of the bank landward for 30 feet on all sides of the stream. Zone 1 has the stronger protections of the two zones, and should have a variety of native grasses, shrubs, and trees.

NO clearing, grading or development should take place here. No mowing, tree removal, or pesticide and fertilizer use.

NO direct deposit of concentrated water runoff flow, such as downspouts from rooftops and paved areas.

ZONE 2

Zone 2 continues landward another 20 feet, creating a 50-foot buffer in total. Grading & revegetation are allowed IF:

if...

- IF no impervious surfaces are added (i.e. paved walkways or slabs)
- IF no trees are removed.

Some stormwater runoff is allowed to enter Zone 2, but the flow must be diffused and traveling at slower speeds. A rock pile or rain garden can help!

PROTECTING THE 50' BUFFER ZONE PRESERVES WATER QUALITY AND ALLOWS OUR NATURAL LANDSCAPE AND ITS WILDLIFE TO THRIVE!

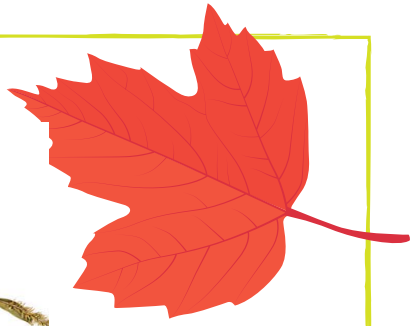
HOW DO I KNOW IF A WATERWAY IS REGULATED?

What may look like a dry ditch during part of the year may be a protected stream that requires a permit for any kind of development. Before doing anything within the 50' buffer that affects stream health (clearing trees and shrubs, adding walkways and structures, applying fertilizer and pesticides, redirecting water flow, etc.) check with your local government for assistance in determining if you are dealing with a protected stream, even if water rarely flows. See the next page for local contact information.

HELPFUL VEGETATION

There are a variety of important plants that thrive in riparian buffer habitats, with deep root systems to help filter pollutants and stabilize stream banks, preventing the loss of sediment. Here are just a few to look for and prioritize in a riparian buffer near you:

Black Willow



Red Maple

Green Ash

Swamp Milkweed (a favorite of Monarch butterflies)

Southern Wax Myrtle

Virginia Sweetspire

LOCAL GOVERNMENT PARTNERS

Reidsville
T: (336) 349-1030
230 W. Morehead Street
Reidsville, NC 27320

Kernersville
Stormwater Division
T: (336) 996-7166
509 Michael Street,
Kernersville, NC 27284

Learn to Assess Stream Health with Stormwater SMART

The local governments listed at left support healthy watersheds through membership in Stormwater SMART. SMART provides free hands-on programming to schools, libraries, civic groups, businesses, and other organizations. Citizen science and stewardship programs like NC Stream Watch (from the NC Department of Environmental Quality) are a fun way to gain scientific skills, enjoy local parks, and improve the health of our waterways! **With NC Stream Watch, people of all ages and abilities can learn how to**:

- Measure nutrient and pH levels
- Observe aquatic species
- Spot signs of erosion
- Identify soil and plant types
- Track trash/litter density
- Locate storm drains, downspouts, and other conveyances

Visit NCDEQ online at deq.nc.gov. From the Divisions menu, select Water Resources.

NORTH CAROLINA Department of Environmental Quality

Contact Stormwater SMART for more information about free stormwater programs in the Triad:
Email stormwatersmart@ptrc.org · Phone (336) 904-0300
Piedmont Triad Regional Council
1398 Carrollton Crossing Drive Kernersville, NC 27284

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