

2020-2021 Annual Report

Wake Soil & Water Conservation District Wake County Soil & Water Conservation Department



Mission: To protect the natural resources of Wake County through voluntary technical, educational, and funding assistance to citizens, businesses, communities, municipalities, and partners.

Vision: Wake County's watersheds provide clean abundant water for its citizens and environment.



WAKE COUNTY'S CONSERVATION DISTRICT STAFF AND BOARD OF SUPERVISORS

Wake County Soil and Water Conservation Department

County Staff

Teresa Furr, District Director
John Beck, Natural Resource Conservationist
Mikayla Renn, Natural Resource Conservationist
Caleb Lippard, Natural Resource Conservationist
Sheila Jones, Environmental Educator
Loren Hendrickson, Conservation Specialist
Abigail Haselton, Temporary Office Support

USDA Natural Resources Conservation Service

Raleigh Field Office Staff -Team 10

Diana Irizarry, Supervisory Soil Conservationist
Gabriela Rodriguez, Soil Conservationist
Matthew Martire, NFI Forester

Wake Soil and Water Conservation District Board of Supervisors

Elected and appointed officials

Thomas Dean, Chair
Jenna Wadsworth, Vice-Chair
Patrick Johnson
Nervahna Crew
Scott Lassiter

Associate Board of Supervisors

Marilyn Grolitzer, Robin Hammond,
Sam Laurie, Larry Perry, John Phelps

Voluntary Agricultural District Advisory Board

Patrick Johnson, Chair
Talmage Brown
David Canady
Fred Burt
Joanie Bowden
William Upchurch
Eric Regensburger



Soil erosion and non-point source pollution continues to cause water quality impacts to watersheds in Wake County. The office has seen an increase in demand for both financial and technical assistance from agricultural producers in Wake County.

Above: Storm damage on crop field due to excessive rainfall amounts.

CONSERVATION PLANNING AND INSTALLATION OF BEST MANAGEMENT PRACTICES (BMPs) ON FARMS

Wake Soil and Water Conservation District staff along with USDA-NRCS staff delivered excellent customer service to Wake County's farm community by writing conservation plans for 2,547.90 acres, ***implemented Best Management Practices (BMPs) on 1,531.28 acres*** and ***distributed over \$133,566 in financial assistance funds*** to protect water quality and improve soil health.

The Natural Resource Conservationists assisted farmers and landowners by visiting 319 farm tracts, writing 27 contracts for financial assistance, and ***encumbering \$191,279 in state and federal cost share funding.***



Above: Newly installed watering tank and heavy use area to provide livestock fresh water and remove them from streams.





SPECIAL GRANT FUNDING AWARDED AND IMPLEMENTED

Wake Soil and Water Conservation District begin implementing a three-year grant from the **National Fish and Wildlife Foundation (NFWF)** called Advancing Soil Health through BMP Adoption and Installation. The grant provides **\$95,820** in financial and technical field assistance to farmers, training on the benefits of cover crops and grazing cover and encourages long-term adoption of BMPs that improve soil health in Wake County.

For **Program Year 2020-2021** the staff implemented **19 NFWF Cover Crop Contracts** on **750.14 acres** and paid out a total of **\$54,451.70** in grant funds to farmers in Wake County. The cover crops reduced 437 tons of sediment, 5,000 pounds of nitrogen and over 200 pounds of phosphorus from entering streams in Wake County.



To the left is a cool season cover crop of cereal rye that has been established through the NFWF grant to reduce soil erosion and nutrient runoff from a crop field near Knightdale and the Neuse River.

To the right is a multi-species cover crop mix of cereal rye, crimson clover, Austrian winter pea and tillage radish that has been established through the NFWF grant to improve soil organic matter, soil quality and increase the soil's resilience to severe weather events.



BEECHTREE HOA BLACK CREEK STREAM RESTORATION PROJECT IN PARTNERSHIP WITH PIEDMONT CONSERVATION COUNCIL

Wake Soil and Water Conservation District partnered with **Piedmont Conservation Council** to **restore 1,000 linear feet of perennial streams**. An additional 2,300 ft of streams could be improved with restoration or enhancement work. A **total of 2.3 acres of floodplain wetlands will be restored**, with an additional 3.1 acres of floodplains enhanced.

The completed project will be an excellent example of the benefits of a holistic project approach, combining the latest stormwater, restoration and dam removal approaches to **provide maximum water quality and ecological benefits**.



Funding for Black Creek Stream Restoration Project:

\$400,000	Clean Water Management Trust Fund Grant (CWMTF)
\$90,000	Environmental Protection Agency (EPA) 319 Grant
\$75,000	N.C. Division of Water Resources Grant (DWR)
<u>\$75,000</u>	Beechtree Homeowners Association (HOA)
\$640,000	TOTAL PROJECT FUNDING SECURED

AGRICULTURAL LEADERSHIP AND COMMUNITY SUPPORT

Wake Soil and Water Conservation District provided support and connectivity to the agricultural community through partnerships and service on various committees, boards, and initiatives.

The District staff provided representation and leadership by attending or serving on the Wake County Water Partnership, Capital Area Food Network, Wake County Farm Bureau, WakeNature Preserves Partnership, Land Protection Committee, Conservation Strategies Committee, Piedmont Conservation Council, Soil and Water Conservation Society Hugh Hammond Bennett Chapter and many others.

Staff continue to serve on local, state, and national boards, bringing attention to **Wake County** as a destination to showcase and model conservation projects or events.

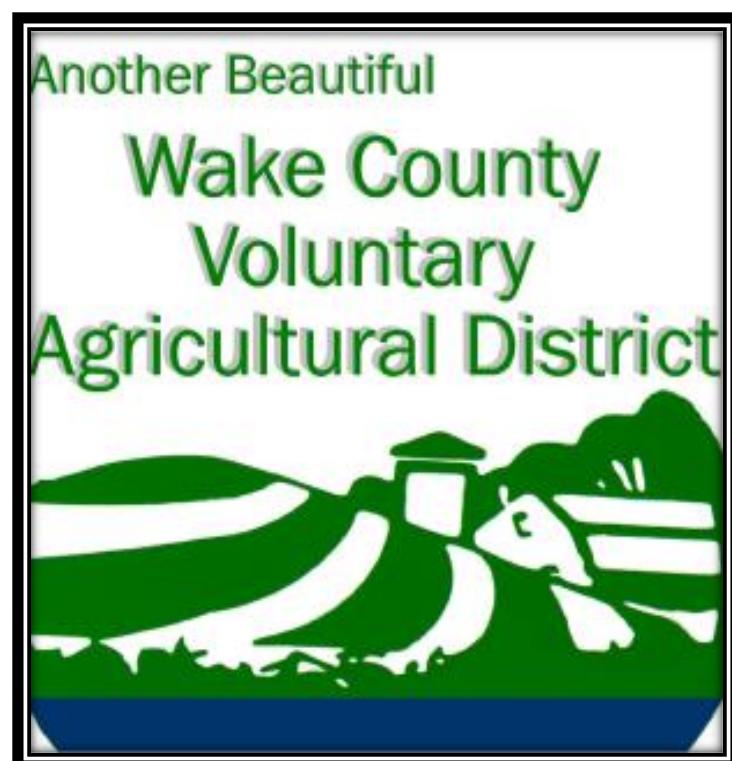
Due to COVID-19 the 16th annual Keeping the Farm Workshop (KTF) was not held *in-person* this year, so the Wake Soil and Water Conservation District decided to host the **first virtual KTF event!** The workshop streamed live through YouTube on Wednesday, March 24, from 1–4 p.m. The recorded workshop videos can be viewed individually on the Department's County website or by live stream recording directly from [YouTube](#). **KTF had over 224 views for both the live stream and recorded events!!**



The Wake County Voluntary Agricultural District (VAD) Program promotes agricultural values and the general welfare of Wake County by increasing the identity of, and pride in, the agricultural community and its way of life.

The program also encourages the economic and financial health of agriculture, horticulture, and forestry through protection from non-farm development and other negative impacts on properly managed farms.

The staff worked with the Voluntary Agricultural District Advisory Board to manage Wake County's VAD Program. There are over 9,504.02 acres enrolled into this free farmland preservation program in FY2021. The VAD Advisory Board approved an additional 11 applications in 2020-2021 totaling 750.6 acres.



ENVIRONMENTAL EDUCATION

YOUTH LEARNING AND ADULT TRAINING



Saanvi Garcha

Grade: 5th

School: Fuller

Wake District staff engages citizens of all ages in learning about the importance of natural resources and how to protect them.

Due to the challenges of COVID-19, Wake District staff worked remotely with over 105 partners to carry out adapted versions of the District's adult and youth environmental education programs.

POSTER CONTEST

This year's "**We All Live in a Watershed**" conservation poster contest engaged a total of 53 students from 4 elementary schools. Wake County's #1 fifth grade "We All Live in a Watershed" poster went on to earn 2nd place at the Area 4 Poster Contest, winning a county-regional total of \$150. Wake County's top fourth grade watershed poster captured 1st place at the Area 4 Poster Contest and won a county-regional total of \$200.

ABOVE: **Wake County's #1 fifth grade poster**, "We All Live in a Watershed" created by Saanvi Garcha of Fuller Elementary in Raleigh.

BELOW: **Green Hope High School's Green (Hope) Tree Frogs** won the NC Envirothon Team Photo Contest, winning \$10 gift cards for each of the five team members, and a \$50 Nasco gift card for their Team Advisor.



ENVIROTHON

A total of 11 Envirothon teams from five Wake County middle and high schools registered for the first-ever virtual 2021 Area 4 Envirothon. **Seven out of the 11 teams swept the Top 7 scores**, earning the privilege to advance to the first-ever 2021 Virtual NC Envirothon. From a field of 41 high school teams from across the state, **Wake County teams placed 2nd, 4th, 7th, 8th, 12th, and 16th.**

ENVIRONMENTAL EDUCATION

YOUTH LEARNING AND ADULT TRAINING



Pictured from left to right: Thomas Dean (Wake SWCD Board Chairman), Sheila Jones (Wake SWCD Environmental Education Specialist), Scott Lassiter (Wake SWCD Board Supervisor), Scott Gaitan (Lincoln Heights Principal), Laura Wood (Lincoln Heights Environmental Connections Integration Specialist), Jessica Currin (Lincoln Heights Magnet Coordinator), John Byrne (Fuquay-Varina Mayor)

WATERSHED STEWARDSHIP SCHOOLS

The Wake Soil and Water Conservation District presented Watershed Stewardship School Awards to **two deserving schools that met Wake District's challenge to complete 10 actions to learn about and improve their school's local watershed.** Both schools will serve as inspiration and mentors to new schools enrolling in the Watershed Stewardship Schools (WSS) program.

Lincoln Heights Environmental Connections Magnet Elementary School in Fuquay-Varina completed their 10 actions this year to protect both Neills Creek and the Cape Fear River Basin.

Abbotts Creek Elementary School in Raleigh completed their 10 action items last year to protect Falls Lake and the Neuse River Basin, but their award presentation was delayed by the COVID-19 pandemic.



Pictured from left to right: Scott Lassiter (Wake SWCD Board Supervisor), Paula Trantham (Abbotts Creek ES Principal), Krista Brinchek (Abbotts Creek ES Science Specialist), Nervahna Crew (Wake SWCD Board Supervisor)



OUTREACH AND VOLUNTEER SERVICES

COMMUNITY PARTNERSHIP AND ENGAGEMENT

Wake County Big Sweep's large group cleanups were cancelled due to Wake County's response to COVID-19. Instead, Big Sweep volunteers led cleanups at home using Ocean Conservancy's Clean Swell app and following all safety protocols including the 3-W's (Wear, Wait, Wash). The Environmental Educator tallied both the 2020 Fall and 2021 Spring **Wake County Big Sweep** program results that, engaged **224 volunteers** who donated 448 hours valued at \$12,681 and removed over **393 pounds** of trash from streams, creeks, and other waterways in 13 Wake County watersheds.

NEW Part-Time BIG SWEEP COORDINATOR POSITION WAS FUNDED IN FY 2022 BUDGET CYCLE

This new position will support the volunteer, education and outreach programs of the Wake Soil and Water Conservation District office. The Coordinator manages the Wake County Big Sweep program that directly engages volunteers in environmental stewardship by removing litter from the county's streams, lakes, and wetlands.

Clean Swell App Totals
Fall Big Sweep 2020
Spring Big Sweep 2021 -
All large group cleanups
cancelled due to COVID-19
concerns.

224 Volunteers
448 Hours Donated
\$12,681* Value of Volunteer Time
25 Zone Captains
13 Watershed sites in
7 Wake County municipalities:
Apex, Cary, Fuquay-Varina,
Holly Springs, Raleigh, Wake
Forest, and Willow Spring

393 Pounds of Trash collected and
sent to landfill
**based on national estimate by
Independent Sector*





The S.T.R.A.W.S. (Single-use Trash Reduction at Wake Schools) Project was **awarded a \$3,000 Ocean Conservancy Small Grant for August 2020-July 2021.**

Despite the tremendous challenges wreaked by the COVID-19 global pandemic and remote learning, the grant partners – Wake Soil & Water Conservation District, Wake County Solid Waste Management Division, By the Brook Productions, and Friends of Wake SWCD – accomplished the grant and S.T.R.A.W.S. project goals.

The S.T.R.A.W.S. Project invited Wake County students in grades 5-12 to view the professional documentary “STRAWS” then enter their own video in “The Last Straw Video Contest.”

A total of 5,375 students and 104 teachers from 41 Wake County schools participated in the S.T.R.A.W.S. Project. The 41 schools downloaded a free, lifetime-use STRAWS film license provided by the Ocean Conservancy Small Grant. Schools then hosted screenings for their students, faculty, parents, and local church members. A total of 1,871 students and film viewers completed the post-film survey with their responses indicating a high level of awareness of the cause and consequences of single-use plastics littered in the environment and a new willingness to take action.

Teachers uploaded a total of 41 student videos as entries in The Last Straw Video Contest. Three middle school students and three high school students won recognition and \$100 each for their creative and compelling videos. Winning videos are showcased on the Department’s county website. Regarding the \$600 in prize money, \$300 was funded by the Ocean Conservancy Small Grant and \$300 was funded by the Wake Soil & Water Conservation District and the Friends of Wake Soil and Water Conservation District.



Linda Royal, NC Film Director

