

2019-2020 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 Team Staff and Leaders

Wake County Soil and Water Conservation Department

County Staff

John Beck, Natural Resource Conservationist
Abigail Haselton, Natural Resource Conservationist
Vacant, Natural Resource Conservationist
Sheila Jones, Environmental Educator
Mikayla Renn, Conservation Specialist
Teresa Furr, District Director

NACD Technical Assistance Grant

Renee Ewing, Conservation Technician

USDA Natural Resources Conservation Service

Raleigh Field Office Staff

Diana Irizarry, Supervisory Soil Conservationist

Elected and appointed officials

Wake Soil and Water Conservation District Board of Supervisors

Thomas Dean, Chair
Jennifer Wadsworth, Vice-Chair
Marshall Harvey, Treasurer
Nervahna Crew
Patrick Johnson

Associate Board of Supervisors

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

Voluntary Agricultural District Advisory Board

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



Soil erosion and non-point source pollution continues to cause water quality impacts to drinking water supply watersheds in Wake County. The office has seen as increase in demand for technical assistance from the citizens of Wake County with regards to damage caused by heavy rain fall from more frequent storms.

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

Wake Soil and Water Conservation 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 and implementing BMP's on 2,533.80 acres which protected water quality and improved soil health.

The Natural Resource Conservationists assisted farmers and landowners by visiting 279 farm tracts, wrote 24 contracts for financial assistance and encumbered \$232,526 in state and federal cost share funding.

The Conservationists designed and installed over 35 best management practices, providing \$159,055 in cost share funds to Wake County farmers and farm landowners.



Request for both technical and financial assistance continues to increase from Wake County farmers that need District staff to help them design and install conservation practices on their farms to protect vital soil and water resources.

SPECIAL GRANT FUNDING

AWARDED AND IMPLEMENTED

Wake Soil and Water Conservation was awarded a **\$63,000 Technical Assistance Grant by the National Association of Conservation Districts**. The grant supported a Conservation Technician, Renee Ewing, who worked with Wake County staff to provide technical assistance and outreach to Wake County residents. The Conservation Technician provided time and resources for additional conservation planning and outreach with the NRCS Conservation Stewardship Program (CSP).



High Tunnels allow growers to produce in-ground crops for a longer period during the year. They protect crops from cold temperatures and frost, as well as overly rainy seasons, so growers can start planting very early in the spring and harvest well into the fall. (photo on left)

The District received funding for three new **Conservation Stewardship Program (CSP)** applications for the 2019-2020 program year in the amount of **\$58,887.00**

One of the popular CSP Enhancements is cropland conversion to trees for long term water quality improvement.

To the right you can see a **cropland conversion to Longleaf Pine planting** that provides not only water quality benefits but also provides important habitat to a variety of wildlife.



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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 serving on the Wake County Agribusiness Council, Wake County Water Partnership, Capital City Grange, Walnut Hill Advisory Committee, Wake Nature Preserve, Land Protection Committee, Conservation Strategies Committee, Piedmont Conservation Council and many others.

Staff spoke at national conferences, participated in environmental discussion panels, and hosted local education/outreach events for Wake County farm and forest landowners. Staff continue to serve on local, state and national boards, bringing attention to **Wake County** as a destination for future conservation.

*Wake Soil and Water Conservation District and local agency partners hosted the 15th Annual **Keeping the Farm Workshop**. Over **150** Wake County farm and forest landowners attended. (photo on right)*



*Friends of the Wake Soil and Water Conservation District hosted the **54th Annual Conservation Awards Celebration** on December 5, 2019. (photo on left)*



The staff worked with the **Voluntary Agricultural District** Advisory Board to manage Wake County's VAD Program. There are over 8,100 acres enrolled **into this free farmland preservation program in FY2020**. The VAD Advisory Board approved an additional 7 applications in 2020 adding over 500 acres to the program.

ENVIRONMENTAL EDUCATION

YOUTH LEARNING AND ADULT TRAINING



ABOVE: **Environmental Educator Sheila Jones** partnered with Wake County Public Schools to create a new Wake Green Schools partnership to encourage every school to learn about the environment whether indoors or out. A total of 15 Wake County schools shared their stories as “Spotlight Schools,” describing their environmental journeys with barriers and successes along the way to “going green.”

BELOW: This year’s “**Wetlands Are Wonderful**” **Top 10 poster winners** pose proudly with their framed certificates at the annual Conservation Awards Celebration hosted by the Friends of Wake Soil and Water Conservation District.



Over 1,902 people participated in **Educational Activities** with Soil and Water Conservation staff.

Wake Soil and Water Conservation engages citizens of all ages in learning about the importance of natural resources and how to protect them. Wake Soil and Water Conservation conduct adult workshops and trainings as well as experiential youth programs.

Wake Soil and Water Conservation provided hands-on learning and educator training to students and teachers of North Carolina’s largest school system. Although the Department has only one **Environmental Educator**, the impact was significant – as revealed by regional and **state winners in the Conservation Poster Contest** and selection of **six** students for scholarships to attend the week-long **Resource Conservation Workshop** at NC State University. The educator supported the Bionomic Education Training Center (BETC) program in **4 Wake County schools**, provided training to **19 Wake County teams** in the Envirothon competition, and assisted Abbotts Creek Elementary to become certified as a new **Watershed Stewardship School**.



Environmental Educator Sheila Jones conducts hands-on activities for adults and youth in Wake County.

OUTREACH AND VOLUNTEER SERVICES

COMMUNITY PARTNERSHIP AND ENGAGEMENT

The Environmental Educator also coordinated the **Wake County Big Sweep** program, engaging **518** volunteers who donated 1,263.75 hours valued at \$32,137 and removed over **10,527** pounds (5.3 tons) of trash from streams, creeks and other waterways in 19 Wake County watersheds for the Fall 2019 Big Sweep cleanups.



Big Sweep volunteers help clean up local waterways



Totals

Fall Big Sweep 2019

Spring Big Sweep 2020 -Cancelled due to COVID-19 concerns

518 Volunteers

1,263.75 Hours Donated

\$32,137* Value of Volunteer Time

25 Zone Captains

24+ Watershed sites

7 Participating Wake County municipalities:

Apex, Cary, Fuquay-Varina, Garner, Morrisville, Raleigh, Wake County South – New Hill

96.45 Miles of Shoreline/
Parkland/Roadway

571 Acres of Park/Land Area

7,715.2 Pounds of Trash[^] collected and sent to landfill

2,812.2 Pounds Recyclables* collected and diverted from landfill

**based on national estimate by Independent Sector +although Cary has numerous sites, it is recorded as "1" site.*

[^]Estimated results by Wake County Big Sweep Zone Captains (20 lbs. per full bag)



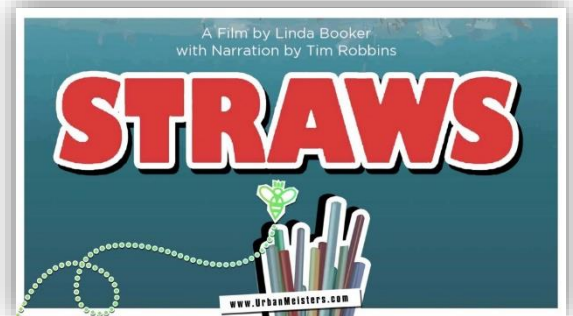
CELEBRATING WAKE COUNTY BIG SWEEP 30TH ANNIVERSARY

Fall 2019 marked **30 years that Wake County Big Sweep** has engaged thousands of volunteers of all ages in sweeping North Carolina's capital county clean of litter. The volunteers' efforts remove litter before it can travel down the Neuse and Cape Fear Rivers to foul North Carolina's beaches and enter the ocean. Although some data has been lost over time, the past 17 years are well documented. ***The grand totals from 2003-2019 include:***

Pounds/Tons of litter removed	# of Big Sweep volunteers	# of hours donated by volunteers	Value of donated hours	# of Watersheds in Wake County cleaned
389,546 pounds/ 194.8 tons of litter removed	19,097	48,129	\$1,225,482	Over 60+ watersheds cleaned across Wake County

To celebrate this historic milestone, **Wake County Big Sweep hosted an evening screening of STRAWS**, a 33-minute documentary on plastic pollution created by North Carolina film director Linda Booker. Many thanks to the following sponsors who made the **30th Anniversary Celebration** a memorable success:

- ❖ Wake County Solid Waste Management Division
- ❖ Mims Distributing Company
- ❖ Raleigh Little Theatre
- ❖ Whole Foods Market- Wellspring Bakehouse



UT SMITH CREEK STREAM RESTORATION PROJECT

IN PARTNERSHIP WITH PIEDMONT CONSERVATION COUNCIL

Wake Soil and Water Conservation District

partnered with Piedmont Conservation Council to **restore 1,252 linear feet of stream on a tributary to Smith Creek**. The goal of this stream restoration project was to not only stabilize the stream's bank but also to improve water quality, which improves habitat for aquatic life. Important components of this process include stream structure installation, for grade control and habitat, and the installation of environmentally suitable native plant material to stabilize the streambank soil, thus helping to protect surrounding residential property.



Prior Condition



After pictures showing the restoration

Funding for UT Smith Creek Stream Restoration Project:

Clean Water Management Trust Fund Grant (CWMTF)	\$257,000.00
NC Division of Soil and Water Conservation	\$194,707.00
Culvert Repair Work from the Town of Wake Forest	<u>\$22,850.00</u>
TOTAL	\$474,557.00

COVER CROP GRANT FUNDING AWARDED FROM NATIONAL FISH AND WILDLIFE FOUNDATION



Wake Soil and Water Conservation District was awarded a grant from the National Fish and Wildlife Foundation (NFWF) for Advancing Soil Health through Best Management Practice (BMP) adoption and installation projects. This grant, totaling **\$95,820**, will provide financial and technical field assistance to farmers, provide training on the benefits of cover crops and grazing cover, and encourage long-term adoption of BMPs that improve soil health and water quality in Wake County.

The Wake Soil and Water District office began accepting applications in August 2020 with the first cover crop grant contracts to be planted in the Fall of 2020.



To the left you can see a cool season cover crop of Crimson Clover established to prevent erosion, increase soil organic matter and improve the soil quality.

Below is a cover crop of Cereal Rye. Cereal rye has an extensive rooting system that is excellent at preventing erosion and holding the soil in place.

This project will improve wildlife and aquatic habitats and benefit both above and below ground ecosystems by implementing cover crops on 500 acres that prevent 2,000 tons of sediment and 5.5 tons of nutrient pollution from entering Wake County watersheds.

