

Annual Report

Stokes Soil & Water Conservation District 2022-2023

Board Members:

James Booth, Chairman

*Marvin Cavanaugh,
Vice Chairman*

*Johnny East,
Secretary/Treasurer*

Dowell Lester, Member

Bob Lindsay, Member

District & NRCS Office Staff:

*Janice Pack,
Soil & Water Conservation
Director*

*McKayla Sawyers,
District Soil/Watershed
Conservationist*

*Jim Propst (Interim),
NRCS (Team 4) Supervisory
Soil Conservationist*



The Stokes Soil and Water Conservation District (SWCD) was organized in July 1960 and encompasses an area of 458 square miles consisting of 287,269 acres. The Stokes SWCD is a locally controlled, special purpose governmental subdivision of the State of North Carolina and is governed by a Board of Supervisors. The District Supervisors are charged with the responsibility of promoting soil and water conservation and establishing conservation programs in the county. Members of the Board serve four year terms with three seats being filled in the general election and two seats being appointed by the North Carolina Soil and Water Conservation Commission.

Board meetings are open to the public and are held the third Wednesday of each month at 9:00 a.m. in the Old Courthouse Office Boardroom in Danbury.

Our Mission

The mission of the Stokes Soil & Water Conservation District is to administer and support local, state and federal programs to the community and to educate citizens and disseminate information regarding the preservation of our natural resources.

Board Members

Pictured to the right are the Board of Supervisors (l to r): Bob Lindsay, Marvin Cavanaugh, James Booth, Johnny East, Dowell Lester



NC Agriculture Cost Share Program

The NC Agriculture Cost Share Program (NCACSP) is administered by the Stokes SWCD to reduce non-point source pollution caused by agriculture. In the 2022-23 fiscal year 6 contracts were approved totaling \$75,361 which included funds from NCACSP and Impaired/Impacted. The following best management practices were installed during the 2022-23 fiscal year:

Practices Installed

Livestock Exclusion Fencing.....	1,315 linear ft.
Livestock Watering Facilities.....	3 units
Pipeline.....	1,074 linear ft.
Ag. Well.....	1 unit
Critical Area Planting.....	.61 acres
Cropland Conversion.....	7.91 acres
Stream Restoration.....	315 linear ft.

The installation of the practices listed above affected 101.96 acres by decreasing soil erosion and reducing the transport of valuable nutrients resulting in a total of 932.75 pounds of nitrogen saved,

2.3 pounds of phosphorus saved, and 302.23 tons of soil saved. Program spot checks for NCACSP, Impaired/Impacted, and AgWRAP are conducted annually by randomly selecting a minimum of 5% from the active contract pool of each program. On April 19, 2023 staff members along with Board Members visited 7 randomly selected sites and performed spot checks of installed best management practices; all were found in compliance. *Pictured above are best management practices installed in the 2022-23 fiscal year; (top) livestock exclusion fencing; (bottom) livestock watering facility with heavy use area protection.*



Agricultural Water Resources Assistance Program - AgWRAP

The Agricultural Water Resources Assistance Program (AgWRAP) is a water quantity program that was authorized through Session Law 2011-145. In the 2022-23 fiscal year 1 contract was approved totaling \$11,000. *Pictured to the left is an AgWRAP well installed in the 2022-23 program year to irrigate produce.*

Practices Installed

Ag. Well.....	1 unit
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USDA-Natural Resources Conservation Service Programs



The Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program/Grasslands Conservation Initiative (CSP/GCI) are administered by the USDA Natural Resources Conservation Service (NRCS) in Stokes County to promote agriculture production and environmental quality, addressing resource concerns such as soil, water, animals, plants, productivity, and air quality. The following practices were installed during the 2022-23 program year:



- Practices Installed
- Waste Storage Facility/Drystack System for Poultry Litter..1 unit (50'x 180' = 9,000 sq. ft.)
 - Roof & Cover for Drystack (covering 9,000 sq. ft.)
 - Roof Runoff Structure/Dripline (360' L x 5' W x 6" D)
 - Annual Grassland Certifications.....31.8 Ac.

Total amount paid to landowners in PY 2022-23 = \$ 76,652

Pictured above (top) is the litter drystack installed on a local poultry farm through EQIP; (bottom) is the dripline installed to handle the runoff from the structure.

Streamflow Rehabilitation Assistance Program (StRAP)



The NC Streamflow Rehabilitation Assistance Program (StRAP) is a new program that provides grants to projects that restore and protect drainage infrastructure of both natural streams and small watershed structural projects to prevent future flooding and reduce risks to life and property. Stokes SWCD staff applied for and received \$246,761 through StRAP in the 2022-23 fiscal year. Part of the funding was used to remove ~1,500 cubic yards of sediment and debris from LY-9 watershed structure that had accumulated over time and was hindering the function of the structure as a whole. Other funds were used to remove ~3,767 cubic yards of debris from 7 segments of stream (totaling 18,996 linear ft.) returning the streams to their natural flow.



In the 2022-23 fiscal year \$190,500 was paid to contractors for work completed through StRAP. More stream debris is slated to be removed in the 2023-24 fiscal year with remaining funds.

Pictured to the left (top): is sediment & debris being removed from LY-9 watershed structure; (bottom) is debris being removed from a section of stream outside Walnut Cove.

Little Snow Creek Stream Renovation Project



In the fall of 2019, the Stokes, Rockingham, and Caswell SWCD's applied for, and received, a three-year EPA Section 319 Grant for the Dan River watershed to address water quality issues and restore waters not meeting state standards. Funding awarded through the grant included \$41,561 for Stokes County. This grant was coupled with a NC Division of Water Resources grant in the amount of \$61,011 along with \$6,406 of Impaired/Impacted cost share funding to repair a section of Little Snow Creek that underwent major renovation in 2017 to reduce sediment delivery and fecal coliform bacteria in the Dan River watershed. This section of stream was badly damaged after major flooding in 2019/20 destroyed several in-stream structures installed during the original restoration project that resulted in severe bank erosion, widening of the stream, and massive sediment deposits within the floodplain bench.

These grant and cost share funds were used to stabilize and regrade a low water ford crossing, remove a mid channel bar, install two constructed riffles, install deep water pools to slow water velocity during storm events, install a boulder cross vane grade control structure, construct floodplain benches, install a boulder wall structure, regrade eroded streambanks, and plant vegetation to prevent future erosion. These practices have now stabilized this section of the stream saving 191.60 tons of soil from entering the watershed which decreases sediment deposition thus improving overall water quality.

The project was completed in January 2023. *Pictured to the left is the completed project.*

Conservation Easements

The Stokes SWCD currently holds 3 conservation easements consisting of approximately 18.21 acres along areas of the Dan River and it's tributaries in an effort to protect riparian buffers for the benefit of water quality and to protect the river in its natural state. These easements were inspected by staff on January 30, 2023 using a drone to capture aerial views of each site. *Pictured to the right: aerial drone photo of one of easements held by Stokes SWCD located on the Dan River at the intersection of Pitzer & Dodgetown roads.*



Voluntary Agricultural District Program



The Stokes County Voluntary Agricultural Districts (VAD) program promotes agricultural values and general welfare of the county by increasing identity and pride in the agricultural community and its way of life, encouraging the economic and financial health of agriculture, and increasing protection from non-farm development and other negative impacts on properly managed farms. Members of the 2022-23 VAD Board are: Carlton Jones, Nancy Ridge, Sharon Hartman, Wesley Bowen, David McKinney, Sloane McPeak, Josh Francis.



The Stokes SWCD, along with the Cooperative Extension Service, advises and provides administrative support to the VAD Board. In the 2022-23 fiscal year a total of 30 new parcels were added to the VAD program preserving an additional 856.80 acres of farmland. There are currently 8,016.68 acres in the Stokes County VAD Program. *Pictured to the left (top): is a cattle farm in Francisco enrolled in the VAD Program; (bottom) is a tobacco farm in Westfield enrolled in the VAD Program.*

Conservation Plans

The Stokes SWCD staff provides free technical assistance to landowners, when requested, by completing conservation plans that identify the landowners conservation objectives and assesses and analyzes the natural resource issues on the land. In the 2022-23 fiscal year, staff wrote 36 conservation farm plans.

Staff Training & Professional Development

Each year Stokes SWCD staff attends multiple training courses (in person & via virtual webinars) in an effort to become more proficient in our duties and provide better service to citizens. In the 2022-23 fiscal year staff attended the following training events: NC Conservation Employees Training, Nutrient Management Certification, Cost Share Program Training, Grassed Waterways Training, Amazing Grazing Training, Pasture Management Training, Soils Training, Pasture Plant ID Training, Cover Crop Training, Livestock Exclusion Systems Training, Stock Trails & Walkways Training, PL-566 Watershed Training, Farmland Conservation Documents Training, Notary Public Certification, and Administrative Documents Training. *Pictured to the right is staff member McKayla Sawyers at the Grassed Waterway Training held in Wake Co. on 12/1/22.*



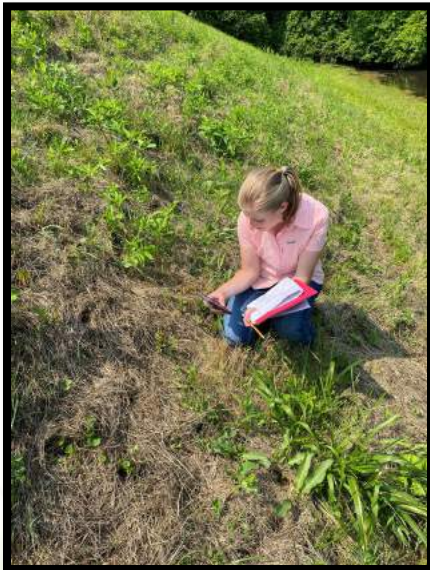
Flood Control Structures – Watersheds



The USDA Natural Resources Conservation Service has designed and constructed 24 flood control structures in Stokes County over the past 60 years. These structures provide flood control for 56,579 acres in the Town Fork Creek watershed area and 36,536 acres in the Little Yadkin watershed area. The Stokes Soil & Water Conservation District is responsible for the maintenance of these flood control structures which includes mowing, fertilizing, liming and debris/brush removal on 75 acres.



In October of 2022 and May of 2023 all dams and emergency spillways on the 24 watershed structures were mowed. Additional maintenance completed during the fiscal year includes reseeding of LY-25 and LY-6 structures, removing trees from TFC-13 structure, and liming all 24 structures to improve overall soil fertility. The Stokes SWCD Board and office staff conducted annual watershed inspections on October 19, 2022. During these inspections soil tests were taken at each site, toe-drain pipes were cleaned out, risers were checked for debris, and the front, top and backside of dams were checked closely for any eroded areas, leaks or scouring holes. On June 15, 2023 the USDA, Natural Resources Conservation Service (NRCS) held a statewide training at TFC-13 structure examining hazard classifications and reviewing inspection protocol.



Pictured to the left: (top) is a drone aerial view of LY-6 structure after reseeding of the dam; (middle) lime being spread on LY-7 structure; (bottom) staff member McKayla Sawyers at the USDA, NRCS training identifying plant species on the front side of the dam at TFC-13 structure.

No-Till Seed Drill

During the 2022-23 fiscal year the Stokes SWCD no-till seed drill was used to reseed and/or establish 200.4 acres of hayland, pastureland, and wildlife plantings in Stokes County. The drill was purchased through a grant from the NC Foundation for Soil & Water Conservation in 2008.

Conservation Education

Each year the Stokes SWCD sponsors educational programs for all citizens of Stokes County. These programs are intended to educate individuals on the value of our natural resources. Programs offered to school age children follow objectives as outlined in the NC Common Core Essential Standards. Listed below are the educational programs conducted during the 2022-23 fiscal year. The poster, essay, and slideshow contest themes were “Water...The Cycle of Life”. These contests were held at the Soil & Water office on February 9, 2023. Pictured to the left are several of the 1st place award recipients.



<u>Educational Contests & Programs</u>	<u>Citizens Participating</u>
Poster Contest (3 rd -5 th grades)	124
Essay Contest (6 th – 12 th grades)	5
Slideshow Contest (6 th – 12 grades)	18
Environmental Awareness Days (see next page).....	413
Envirothon Competition (see next page).....	12
Resource Conservation Workshop (see next page).....	1
Conservation Programs & Career Presentations.....	70
Regional Grant Program Presentation.....	85
Career Fairs (Middle & High School)	1,182

Awards Banquet

On May 18, 2023 the Stokes SWCD held it’s annual Awards Banquet at YMCA Camp Hanes in King. At this banquet those who placed in the above mentioned contests as well as the Resource Conservation Workshop student delegate, the Conservation Educator of the Year, and the Conservation Farm Family of the Year were recognized. There were 67 people in attendance at the banquet. Below is a list of contest award recipients:

POSTER CONTEST

- 3rd Grade – 1st Place – Sadie Briggs (Sandy Ridge Elem.)
- 3rd Grade – 2nd Place – Carah Rhodes (Sandy Ridge Elem.)
- 4th Grade – 1st Place – Bryson Atkins (Nancy Reynolds Elem.)
- 4th Grade – 2nd Place – Haylee Butz (Pine Hall Elem.)
- 5th Grade – 1st Place – Fernanda Martinez (Sandy Ridge Elem.)
- 5th Grade – 2nd Place – Kadence Outen (London Elem.)

ESSAY CONTEST

- 6th Grade – 1st Place – Kylie Young (Southeastern Middle)
- 6th Grade – 2nd Place – Kaylee Taylor (Southeastern Middle)
- 8th Grade – 1st Place – AJ Clookey (Chestnut Grove Middle)

SLIDESHOW CONTEST

- 6th Grade – 1st Place – Adela Monita (Southeastern Middle)
- 6th Grade – 2nd Place – Taylor Durham (Piney Grove Middle)
- 7th Grade – 1st Place – Kendra Stevens (Piney Grove Middle)
- 7th Grade – 2nd Place – Carter Anderson (Piney Grove Middle)
- 8th Grade – 1st Place – Riley Flinchum (Piney Grove Middle)



Conservation Educator of the Year – Ashley Johnson (SSHS)



Conservation Farm Family of the Year recipients – Don & Lori Durham from Westfield.



Environmental Awareness Days

Each spring the Stokes SWCD sponsors Environmental Awareness Days for 5th graders at Hanging Rock State Park (HRSP). At this event students rotate through stations learning about topics such as soils, wildlife, forestry, weather, functions of the human body, the water cycle, honeybees and plant and animal ecosystems, all of which follow the NC Common Core Essential Standards for 5th grade science. The 2022-23 Environmental Awareness Days event was held on April 25-27 with 413 students and teachers participating. *Pictured to the left is Stokes SWCD staff member, McKayla Sawyers, conducting an erosion demonstration with students at the Soils station during this year's event.*

Resource Conservation Workshop

The Resource Conservation Workshop is a week long intensive study and hands-on conservation workshop held on the campus of NC State University each year for conservation-minded students in grades 9-11. Each Soil & Water District in the state is allowed to send at least one student representative to participate in the workshop. The District's select a student from a pool of applicants and then registers them for the competition by paying the \$575 registration fee which includes housing and meal costs. The Board selected Payton Barbee from South Stokes High School to participate in the 2023 workshop being held June 25 – June 30. *Pictured to the right is Payton Barbee being recognized at the 2023 Soil & Water Awards Banquet.*



NW Envirothon Competition

The NW Envirothon is an environmental competition in which middle and high school teams from the northwest section of the state exercise their training and problem-solving skills by testing in categories such as: soils/land use, aquatic ecology, forestry, wildlife and current environmental issues. The teams, each consisting of five students from participating schools, test as a group. The top scoring teams at the regional competition advance to the NC State Envirothon held each year in Alamance County in April. The Stokes SWCD sponsored 2 teams from South Stokes High School to compete at the event held on March 22, 2023 in Wilkes County. Stokes SWCD staff also processed registrations for the 29 high school and 25 middle school teams that participated this year, which included over 300 participants from across northwest NC. *Pictured to the right are the South Stokes High School teams at the competition.*



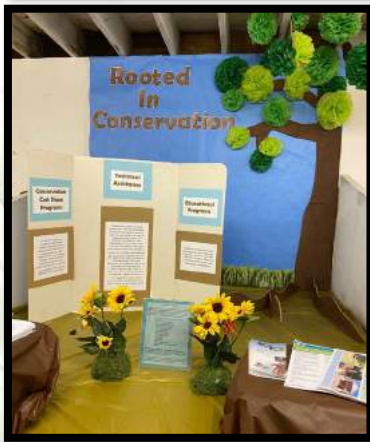
Farmer Appreciation Event

Each year the Stokes SWCD along with the Cooperative Extension Service, the Farm Service Agency and the NC Forest Service put on a “free for all” Farmer Appreciation event which includes a meal and live band entertainment paid for by local businesses who continue to support agriculture in Stokes County. The event was cancelled for several years during the COVID-19 pandemic but was back in swing again in 2023. This year’s event was held on March 23rd from 6-9PM at North Stokes High School in Danbury. The cafeteria and gym were used as dining areas with a large stage set up for “Robert Tilley & The Hard Times Band” in the gym. Soil & Water Board members and staff from all agencies served food to all in attendance. An expo was held in the upper and lower level lobbies featuring exhibits from all participating Ag. agencies and many local businesses. Door prizes were donated by sponsoring agencies and disseminated at 8PM along with a raffle drawing by the Stokes SWCD. There were approximately 311 people in attendance at this years event. *Pictured to the left are photos taken at the 2023 event.*



Public Outreach

The Stokes Soil & Water Conservation District produces and mails a bi-annual newsletter to over 2,300 citizens each year called “Soil & Water News”. In this publication, announcements are made regarding all conservation programs offered and upcoming district events. The office staff also submits informative articles on new and innovative conservation techniques, Farm Bill updates, and grants that are available. Each newsletter is posted on the district website (www.stokesswcd.org). This up-to-date website introduces local board members, lists details of all cost-share programs, lists all educational programs and contests, answers frequently asked questions, presents an up-to-date calendar of events, links, and office contact information. The website has been in production since 2006 and continues to be a useful tool in getting the conservation message to the public. *Pictured to the left (top) is the Spring 2023 edition of the Stokes SWCD newsletter.*



As another means of outreach, each fall the Stokes Soil & Water Conservation District displays a fair booth at the Stokes County Agricultural Fair. The 2022 fair was held September 13-17. The district set up a booth titled “Rooted In Conservation” in which programs and technical assistance available was highlighted. *Pictured to the left (bottom) is the 2022 Stokes SWCD fairbooth display.*

Volunteers

The Stokes SWCD would like to thank the many volunteers who donate their time each year to assist and promote the conservation initiatives of the district office. In the 2022-23 fiscal year a total of 21 volunteers worked with the Stokes SWCD totaling 71 hours served.

Thank You For Your Support

The Board Members and Staff of the Stokes Soil and Water Conservation District would like to extend their sincere appreciation to all landowners, agencies and groups who assist us in carrying out conservation programs.

Stokes County Board of County Commissioners

North Carolina Department of Agriculture

NC Division of Soil and Water Conservation

NC Soil and Water Conservation Commission

USDA Natural Resources Conservation Service

NC Department of Environmental Quality

NC Division of Water Resources

USDA Farm Service Agency

Stokes County Cooperative Extension

NC Forest Service

Stokes County Board of Education

Hanging Rock State Park

Rocky Road Web Designs

STOKES SOIL & WATER

CONSERVATION DISTRICT

Yours for Life

What we do...

The Stokes Soil & Water Conservation District encourages the wise use and management of our natural resources through planning, technical assistance, education, and proper administration of conservation programs for the citizens of Stokes County.

How we can help...

Cost share programs are available to qualifying landowners that help address non-point source pollution that improve water quality through the installation of best management practices (BMPs).

Technical assistance and educational programs are also available that equip citizens with the knowledge and tools needed to conserve, maintain, and restore natural resources.

Contact Us...

336.593.2490 or 336.593.2846 ext. 3
www.stokesswcd.org