

ANNUAL REPORT



Henderson County Soil and Water
Conservation District FY 2022



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From the Board of Supervisors

The mission of the Henderson County Soil & Water Conservation District is *to provide educational, technical, and financial assistance to conserve soil, improve water quality, and enhance the natural resources of Henderson County*. We could not successfully accomplish our mission without the District's partnership with Henderson County, the USDA-NRCS, NCDA&CS, and other private and governmental organizations.

Our partners provide the foundation and much of the needed capital and technical expertise to help us accomplish our conservation programs. We are especially grateful to the Henderson County Commissioners for their financial support, as well as to the County Manager's office and other county departments for their assistance.

The Board of Supervisors and staff of the Henderson County Soil & Water Conservation District are very proud of the District's accomplishments during the 2022 fiscal year (July 1, 2021 through June 30, 2022). These accomplishments are summarized in this Annual Report.



Andrew C. Brannon
Chairman, Board of Supervisors

Greg Hoyt, Vice-Chairman
Wayne Carland, Treasurer
Daniel McConnell, Secretary
Jerred Nix, Member



Agriculture Cost Share Program

One major cause of water quality problems in North Carolina is nonpoint source pollution. In many places, damage to our water resources comes from soil erosion, excessive fertilizer use, animal waste contamination, and improper use of agricultural chemicals. The North Carolina Agriculture Cost Share Program (NCACSP) helps address nonpoint source pollution by providing technical and financial resources to cooperators. This program is administered through the Henderson County Soil & Water Conservation District to fund the installation of various Best Management Practices (BMPs) for water quality improvement. These funds become available after July 1 each year.

In Henderson County, the NCACSP funded the implementation of 19 BMPs in the 2022 fiscal year. In NCACSP programs alone, the Henderson County Soil & Water Conservation District received \$80,584 in program funding from the NC Division of Soil and Water Conservation. These funds were allocated to cooperators for the implementation of the following BMPs: Agrichemical Handling Facility, wells supplying water to an Agrichemical Handling Facility, Critical Area Treatment in orchards/vineyards, and livestock exclusion fencing. In addition, 2,550 feet of orchard spray lanes were stabilized.



Agricultural Water Resources Assistance Program

The goals of the North Carolina Agricultural Water Resources Assistance Program (AgWRAP) are to:

- Identify opportunities to increase water use efficiency, availability, and storage
- Implement Best Management Practices (BMPs) to conserve and protect water resources
- Increase water use efficiency
- Increase water storage and availability for agricultural purposes

This program was established by NC Session Law 2011-145 and is designed to assist farmers in conserving soil and improving water quality. In Henderson County, \$7,500 of AgWRAP funds were received in 2022 to meet these goals. This year's BMP was agricultural well construction to supply water for irrigation. This funding will help to increase water storage capacity.



Community Conservation Assistance Program

The Community Conservation Assistance Program (CCAP) is a North Carolina voluntary cost-share program that is administered by each SWCD. The program is designed to address nonpoint source water pollution from residential and urban lands not directly involved with agriculture.

CCAP pays up to seventy-five percent of the costs to install conservation practices that decrease sediment, nitrogen, phosphorus, chemicals and other pollutants entering surface water and groundwater. Best Management Practices (BMPs) include Abandoned Well Closures, Rain Gardens, Critical Area Plantings, Riparian Buffers, Streambank Protection, Cisterns and others that address water quality issues.

Funding for CCAP is provided by the NC Division of Soil & Water Conservation and is awarded through a competitive regional application process. The 2022 NC budget provided additional one-time funding for the CCAP program. As a result, HCSWCD was awarded \$56,000 for a bioretention area and a cistern. Both practices will control stormwater runoff to reduce soil erosion and to improve water quality. The bioretention area is in the design phase and should be constructed next spring. The cistern will be installed later this fall. The design of the 2021 CCAP project has been completed and will include a backyard rain garden, critical planting area, and streambank protection. This project will be complete this fall when temperatures are cooler and plant survival is better for local plants.

Additionally, the District's Conservation Engineer conducted 46 site visits to provide recommendations for improvement to landowners and provided answers to a variety of soil and water related questions. Eighteen written responses were developed. These assessment reports provided recommendations for improvements, site photos with descriptions of recommended improvements, and resources for further study and/or assistance. Site visits and responses evaluated streambank erosion, stormwater runoff, drainage, erosion, and flooding. Photos below depict examples of issues seen in the County.



Natural Resources Conservation Service (NRCS)

One of the main Farm Bill Programs that NRCS administers is the Environmental Quality Incentives Programs (EQIP) to assist landowners in applying conservation best management practices (BMP's) on their working agricultural lands. EQIP supports the conservation priorities established for the Henderson County SWCD. BMP's are used to correct natural resource concerns on a variety of land uses, including pasture, cropland, and forest land. NRCS uses technical, engineering, and financial resources to assist landowners with these projects.

Another Farm Bill Program that NRCS administers is the Conservation Stewardship Program (CSP) which is a voluntary program that encourages agricultural producers to improve conservation systems by improving, maintaining, and managing existing conservation activities and undertaking additional conservation activities.

NRCS and the Henderson County SWCD were able to partner on several projects to best meet the needs of the landowner as well as their resource concerns. Some of these included, but were not limited to, water wells and agrichemical handling facilities, streambank restoration, livestock watering facility and pipeline installation.



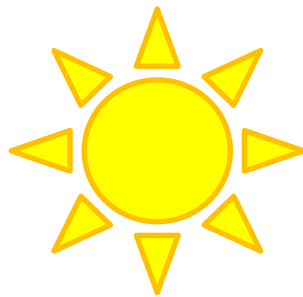
**United States
Department of
Agriculture**

Educational Programs

Eighth Grade Students Investigate and Texture Soil with Guest Instructor Dalton Buchanan

Over 50 eighth grade students participated in the Ag Field Day event sponsored by Henderson County Cooperative Extension at North River Farms on October 14, 2021. The Henderson Soil and Water Conservation District was invited to attend to teach students about soil.

Gorgeous weather, a deep soil pit, and an excellent instructor (Dalton Buchanan, Soil Scientist with the NC Division of Soil and Water Conservation) made for an informative and beautiful day. Dalton shared the components of soil, stepped down into the recently dug soil pit to explain soil horizons, and taught students to perform a "ribbon test" to determine the type of soil by feel. The ribbon test is conducted by gathering soil in one's hand, wetting with a bit of water, and forming a "ribbon." This is one thing we would recommend you try at home!



Camps & Summer School: This summer was busy!

The summer of 2021 brought the opportunity to present at several day camps in our area! We took some of our most popular soil and water activities and turned them into a summer camp feel! Campers experienced all the best of our hands-on activities and had fun while learning more about soil and water conservation.

In the summer of 2021, The District offered a mini Kids in the Creek event to all STEM campers at Mills River Park. Students searched for and identified macroinvertebrates in Mills River, conducted chemical water quality tests, played a "Macro Mayhem" game, learned about careers in STEM, and discussed stream morphology. Additionally, the Henderson County Environmental Programs Coordinator, Christine Wittmeier, presented a very informative talk on the County's waste system and the benefits of composting food scraps.

In the summers of 2021 and 2022, the Soil & Water Conservation District was asked to partner with the Henderson County School District to provide enrichment activities for their Summer Learning Program and with the Henderson County Education Foundation for their STEM (Science, Technology, Engineering, and Math) camp. Hands-on activities for elementary and middle school students supplemented classroom learning. These programs were a great fit, especially our new "All About Water" lesson!

HENDERSON SOIL & WATER CONSERVATION DISTRICT

Educational Programs

Education Contests

Every year, the North Carolina Association of Soil & Water Conservation Districts sponsors poster, essay, and speech contests for third through eighth grade students. These contests are designed for students to become aware of and share their concerns for soil and water conservation using a predetermined theme, which for 2022 was “Soil and Water: Yours for Life.” Entries are judged on criteria including conservation message, originality, organization, and neatness. The essays are required to be between 300 and 500 words and the speeches are to be four to six minutes in length.

The challenges of the pandemic limited our offerings, but by offering contactless pickup and drop off options, we were able to continue with our poster and essay contests. We appreciate the hard work and extra effort teachers made to give their students the opportunity to participate. Students worked hard to create visually stunning conservation posters for this year’s contest and to write essays reflecting the contest theme.

We are very proud of this year’s Henderson County Contest participants! The winners are listed below:

| GRADE | CONTEST | PLACING | STUDENT | SCHOOL |
|-----------------|---------|-----------------|-------------------|--|
| 3 rd | Poster | 1 st | Owen | Fernleaf Community Charter School |
| 3 rd | Poster | 2 nd | Kaleigh | Fernleaf Community Charter School |
| 3 rd | Poster | 3 rd | Frederick & Tessa | Fernleaf Community Charter School |
| 4 th | Poster | 1 st | Jack & Susannah | Fernleaf Community Charter School Bruce Drysdale Elementary |
| 4 th | Poster | 2 nd | Josiah | Bruce Drysdale Elementary |
| 4 th | Poster | 3 rd | Ruby & Tessa | Bruce Drysdale Elementary Fernleaf Community Charter School |
| 6 th | Poster | 1 st | Eliza | Fernleaf Community Charter School |
| 6 th | Poster | 2 nd | Kaden | Fernleaf Community Charter School |
| 6 th | Poster | 3 rd | Everly | Fernleaf Community Charter School |
| 6 th | Poster | School Winner | Allison | Flat Rock Middle School |
| 6 th | Essay | 1 st | Harry | Fernleaf Community Charter School |

Two of the winners listed above placed second in the Area 1 competition: Eliza and Harry. Congratulations!

Thank you to the 157 students and four schools that participated in this year’s contests!

Educational Programs

Community Events and Workshops

The HCSWCD annually provides outreach and educational materials at various community festivals, events, and workshops. Again, mass gathering limits and restrictions led to the cancellation or limiting of the events in which we traditionally participate. As the year continued, along came more outdoor events and we were proud to participate in NSCU's Tomato Field Day, Winter Apple School, Henderson County Compost Workshop, and the Area 1 Envirothon.

Compost Workshop and Tour

The HCSWCD, Cooperative Extension, and Henderson County Environmental Programs held a Compost Workshop and Tour on March 3, 2022 funded by a grant from the USDA. The morning event informed over 20 participants from various sectors about the importance of composting, types of systems, permitting requirements, and minimizing food safety risks. Carbon farming was discussed and local examples of composting systems from Sierra Nevada and Living Web Farms were shared. After instruction, the group toured Henderson County's compost facility.

Currently, the Henderson County Environmental Program has set up a pilot project at six elementary schools to collect compostable waste from the lunchroom. The project is in its second year and becoming quite successful. Currently, the lunchroom waste is going to Atlas Organics, a commercial compost facility. The Environmental Program has also established a residential food waste drop off program at the Henderson County Convenience Center. Roughly two tons of food are collected monthly. The food waste is mixed with woody material collected at the Transfer Station and then composted at the County's compost facility. Education on composting and compostable products will be on-going as the County expands both programs.



Educational Programs

Kids in the Creek

The Henderson County Soil and Water Conservation District would like to thank the nine partner organizations and various community members that volunteered their time to make the Kids in the Creek program a success this year.

On April 26th-28th, nine partner organizations, along with community volunteers, hosted 350 eighth-graders from Rugby Middle School and Fernleaf Community Charter School at Mills River Town Park to learn more about water quality. Students spent the days attending seven sessions related to water quality. Students had hands-on opportunities to survey the stream and collect aquatic life, properly identify macroinvertebrates found in the river, take water samples and conduct water quality testing, learn more about the process of water filtration through the water cycle, learn about stormwater in Henderson County, learn about recycling and its effects on water quality, and even play a game where students were able to “be” aquatic life.

Great weather and a great host site allowed students to reinforce concepts discussed in the classroom. This event could not have been a success with the volunteer efforts of the Henderson County Soil & Water Conservation District, NC Wildlife Commission, City of Hendersonville Stormwater, City of Asheville Water, Mills River Parks and Recreation, MountainTrue, Greenworks, Farm Service Agency, Natural Resource Conservation Service, Fernleaf Charter School, Rugby Middle School, and various community members who gave their time for this event.



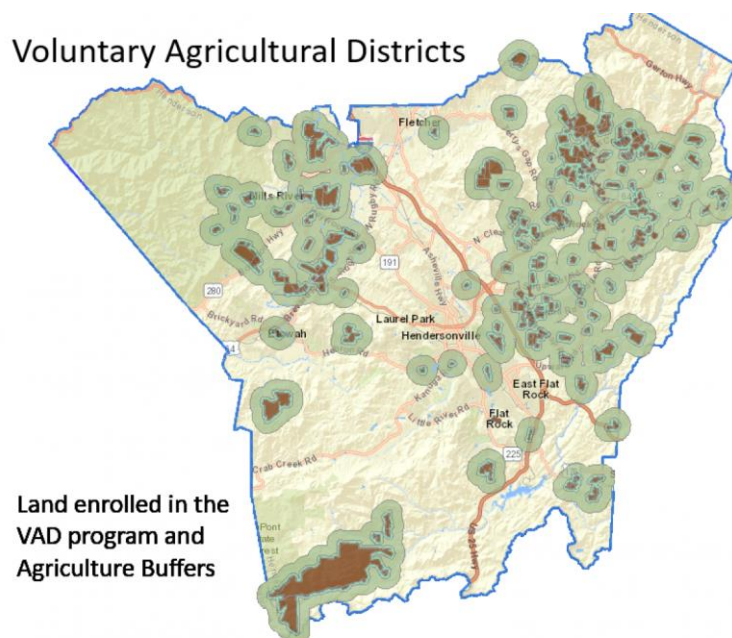
HENDERSON SOIL & WATER CONSERVATION DISTRICT

Voluntary Agricultural Districts

In 1985, North Carolina General Statute Chapter 106, Article 61, known as "The Agricultural Development and Farmland Preservation Enabling Act," authorized counties to establish farmland preservation programs by ordinance. The purpose was to encourage the preservation of qualifying farmland and to foster the growth, development, and sustainability of family farms. In 1991, the Henderson County Board of Commissioners adopted the Voluntary Farmland Preservation Program Ordinance which created the Voluntary Agricultural District (VAD) program.

The VAD program is administered by the Henderson County Soil & Water Conservation District through the five-person Henderson County Agricultural Advisory Board. Landowners interested in VAD membership apply to the Agricultural Advisory Board; there is no fee to apply. To qualify, a parcel must be in an unincorporated area of Henderson County or in the Town of Mills River; be managed in accordance with Natural Resources Conservation Service defined erosion-control practices if highly erodible land exists on the farm; and either be participating in (or qualify for) the present-use value taxation program or be engaged in "agriculture" as defined by NC General Statute 106-581.1, earning at least \$2,000 per acre in the year prior to application (or an average of at least \$2,000 per acre for five years prior to application). Landowners participating in VAD agree not to convert the land to non-farm or development use for a period of at least ten years, except for the creation of not more than three lots on a parcel.

The Henderson County GIS system, GoMaps (www.hendersoncountync.gov/gis), contains a feature to display Agricultural Districts and Agricultural District Buffer layers, which is part of the public notification portion of the VAD Program. Those interested in purchasing property in Henderson County can determine if they are near or adjacent to agricultural operations. Currently 360 parcels, owned by 156 landowners and consisting of 11,244.95 acres, are enrolled in the nine agricultural districts in the county.



Mills River Partnership

The Mills River Partnership (MRP) is a regional non-profit organization that works to monitor, preserve, protect, and enhance the quality of public drinking water supplies in Henderson County. It relies upon the voluntary cooperation of participating landowners and focuses on watersheds that provide the drinking water supply for all of Hendersonville's- and a portion of Asheville's- public drinking water customers.

The MRP began as an informal organization in 1998 and has formalized its efforts due to increased demand for a cleaner and more sustainable drinking water supply. The MRP incorporated as a non-profit organization in August 2011 and has received 501(c)3 status from the IRS. The MRP is working with various agencies, conservation organizations, agricultural businesses, landowners, and residents in the watershed to protect and improve the water supply for consumers and other users. The MRP has received a 319 Non-Point Source Pollution Control Grant for the Mills River Watershed. The Mills River has historically moved on and off the 303(d) impaired listing.

The Henderson County Soil & Water Conservation District (HCSWCD) has been working with MRP to install Best Management Practices (BMPs) on the ground within this watershed. This includes facilitating the connection between cooperating farmers and MRP to implement the BMPs. HCSWCD is also providing technical guidance and services to MRP for the design and installation of the BMPs.

Two projects were completed in FY2022. The first completed project involved a riparian buffer improvement. The second project was the installation of a farm access road and heavy use area. These BMPs will help reduce nonpoint source pollution into the Mills River and improve water quality. Pictures below show before and after a project.



HENDERSON SOIL & WATER CONSERVATION DISTRICT
















Spot Checks and District Sponsors

SPOT CHECKS

Each year the Henderson County Soil & Water Conservation District (HCSWCD) is required by the NC Division of Soil & Water to conduct spot checks on a minimum of five percent of all active contracts installed in the county. When conducting the spot checks, the HCSWCD Board and staff visit landowner's properties and check the condition and maintenance of the practice that was funded using NC Agriculture Cost Share, NC Agricultural Water Resources Assistance, or Community Conservation Assistance Program funds. This year's spot checks were conducted in April.

HENDERSON COUNTY SOIL & WATER CONSERVATION DISTRICT SPONSORS

The businesses listed below support the work and programs of HCSWCD. We are very grateful for our sponsors!

| | | | |
|--|---|--|--|
|  <p>FLETCHER LAWN & GARDEN HARDWARE</p> <p>Sammy Johnson, Owner 38. Adams Street, P.O. Box 96 • Henderson, NC 28732 Telephone: (828) 684-0561 www.fletcherlawngardengarden.com</p> |  <p>KIRBY JOHNSON VICE PRESIDENT MOUNTAIN LAWN CARE 828-329-8622 Clyde 43223-4300 - CRESKO kirby@kflavorist.com</p> |  <p>Villa's Landscaping High Quality Landscaping www.villaslandscapingnc.com</p> <p>Fernando Villa Contractors license #3447 fllercio87@gmail.com (828) 551-8740 2073 Old Spartanburg Rd Hendersonville, NC</p> <p>We are focused to create the best and high quality landscapes. We are professional, licensed and insured.</p> |  <p>AgHC AGRIBUSINESS HENDERSON COUNTY</p> |
|  <p>Kieran Roe Executive Director</p> <p>Office: 828-697-5777 x301 Cell: 828-231-8650 kroew@conservingcarolina.org</p> <p>947 Case Street Hendersonville, NC 28732 conservingcarolina.org</p> |  <p>HILLSIDE NURSERY WHOLESALE COMPANY, LLC "For the Best in Trees and Service" P.O. Box 1395, 1 Summerlawn Drive, Elwood, NC 28728</p> <p>KEN ALLISON sales@hillside-nursery.com 828 / 693-1893 FAX 828 / 893-2871</p> |  <p><i>Saint Paul</i> MOUNTAIN VINEYARDS</p> |  <p>NORTH RIVER FARMS EST. 1999 agriculture HILLS RIVER, NC 828-686-5316</p> |
| <p>Service comes standard with your auto coverage.</p> <p>828-698-5534 www.farmbureau.com Helping you to protect one of your best investments. Get Road Auto, Home, Life, Boat.</p>  |  <p>Moore Farm Equipment, Inc. 201 Duncan Hill Road Hendersonville, NC 28792 (828) 693-4968 Fax (828) 492-1532</p> <p>Jerry Moore General Manager</p> <p>Bobby Moore Tech Manager</p> <p>Wendie Chastain Sales</p> |  <p>TURF MOUNTAIN SOD, INC. 3277 Chimney Rock Road Hendersonville, NC 28792 www.turfmountain.com Email: turfmountain@bellsouth.net</p> <p>828-685-3642 Fax: 828-685-1121</p> <p>Blessed by Our Heritage – Legacy Farming For Generations</p> |  <p>RI RESOURCE INSTITUTE</p> |
|  <p>FARM CREDIT</p> <p>Brooks Oswaty Commercial/Ag Consumer Loan Officer www.brooksoswaty.com/brooksoswaty.com 2646 Chimney Rock Hwy., Hendersonville, NC 28792 Office: 828-685-0272 ext. 1131 Cell: 828-776-9772 fax: 828-688-0276</p> <p>CAROLINA FARM CREDIT.COM 800.5.1.FARM.CREDIT</p> |  <p>MORROW Insurance Agency, Inc. 800 Beverly Hanks Centre Hendersonville, NC 28792 www.morrowinsurance.com</p> <p>E. Taylor@morrowinsurance.com P: 828-694-5146 M: 828-768-6197</p> <p>Liz Taylor Vice President Crop Insurance</p> |  <p><i>Barnstaple</i> VINEYARDS Restaurant Opening Spring '22 Featuring Local Produce 2693 Sugarloaf Road Hendersonville, NC 28792 828-685-2402 www.barnstaplevineyards.com</p> | <p>We would like to thank our sponsors!</p> |

HENDERSON SOIL & WATER CONSERVATION DISTRICT

Board of Supervisors and Staff

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DISTRICT SUPERVISOR



Chairman
49 Years of Service

GREG HOYT
DISTRICT SUPERVISOR



Vice-Chairman
34 Years of Service

WAYNE CARLAND
DISTRICT SUPERVISOR



Treasurer
21 Years of Service

DANIEL MCCONNELL
DISTRICT SUPERVISOR



Secretary
34 Years of Service

JERRED NIX
DISTRICT SUPERVISOR



Member
5 Years of Service

DISTRICT STAFF



**Left to Right: April Hoyt,
Jonathan Wallin, Betsy
Gerwig, and Caroline Wicker**