

West Virginia
Conservation Agency

2022 Annual Report

Conserving West Virginia's Natural Resources

West Virginia
Conservation Agency

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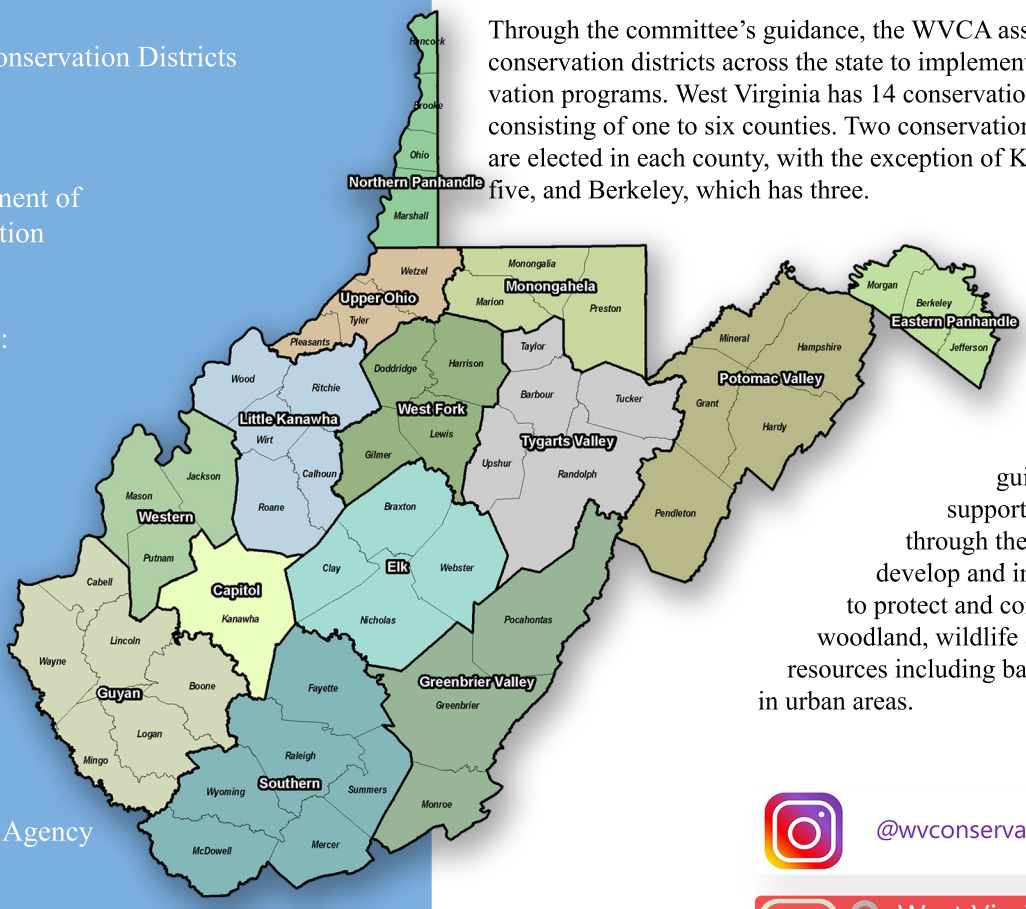
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Introduction

The mission of the West Virginia Conservation Agency (WVCA) is to provide for and promote the conservation of West Virginia's soil, land, water and related resources for the health, safety and general welfare of the state's citizens. The State Conservation Committee (SCC) serves as the governing body of the WVCA.

Through the committee's guidance, the WVCA assists and works with conservation districts across the state to implement a variety of conservation programs. West Virginia has 14 conservation districts, each consisting of one to six counties. Two conservation district supervisors are elected in each county, with the exception of Kanawha, which has five, and Berkeley, which has three.



These local boards operate under the guidance and with the support of the SCC, through the WVCA, and develop and implement programs to protect and conserve soil, water, woodland, wildlife and other renewable resources including backyard conservation in urban areas.

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Watershed Maintenance Key Figures (FY 2022)

$1,078,788
Cost of regular maintenance to dams

By legislative dam safety rule, dams are inspected monthly or more frequently.

170
Dams considered "high hazard"

107
Dams are 50 years of age or older

$97.8 million*
In flood protection provided to West Virginia each year

*(Consumer Price Index, year 2022)



*** There are 170 small watershed flood-control dams and 22 flood-control channels in WV.**

*** "High hazard" means failure of the dam could result in loss of human life and/or property.**

*** Nearly 60 percent of West Virginians (1.06 million) are benefitted by the flood-control dams and channels.**

Watershed division marked busy year of work protecting people and property







***Top left**: Workers on site during construction in the fall of 2022 at Elk Twomile No. 14 dam in Kanawha County. **Top right**: Excavation work at Upper Grave Creek No. 1 dam in Marshall County. **Bottom right**: A new trash rack had been installed on the riser at New Creek No. 17 dam in Mineral County.*

A multi-year funding commitment from the Legislature in recent years has allowed for extensive dam repairs to be made around the state, with more projects to come to address further need.

The idea behind the projects to repair slips or correct seeps, concrete spalling, and aging trash racks is to buy down some risk on these small watershed flood-control dams.

In 2022, the WVCA Watershed division and several conservation districts undertook the first of many phases needed to keep the dams safe. Statewide, 107 small watershed dams are age 50 or older.

"We've been working on this for a while," said WVCA Director of Watershed Projects Gene Saurborn. "We have a list of more projects to do that are very similar."

Recent dam repair projects

Elk Twomile No. 14 dam in Kanawha County had sources of water identified on its downstream embankment as coming from both the left and right abutments. The problem is known as a seep.

The fix on the dam eliminates the potential for internal erosion that exists with seeps and also increases the embankment's slope stability by removing water and keeping it from saturating the soil.

Two weir boxes also were installed at Elk Twomile 14. Some other dam projects got new weir boxes, as well.

A watershed technician can monitor the weir box over time. The box reveals water flow volume and any soil particles that move into its collection system.

Surface water runoff improvements also were made at the dam's upstream and downstream embankments, which includes an erosion repair, as well.

The estimated total completion cost is $347,621.

South Fork No. 5 in Hardy County has had installed a large drainage system across the face of the downstream embankment and a weir box to deal with the dam's seep coming from the left abutment.

Additional surface water runoff has been diverted upstream to the reservoir, as well. Flexamat erosion protection was installed in a shallow cutoff ditch and will divert the surface water into the flood pool.

See **WATERSHED PROJECTS** on Page 25

Agricultural Enhancement Key Figures (FY 2022)

The Agricultural Enhancement Program supports West Virginia's farm community with cost-share practices to reduce soil erosion, provide alternative water for livestock and improve the productivity of farmlands in the state's 14 conservation districts.

The program is administered by the conservation districts with assistance from the West Virginia Conservation Agency. Supported practices are determined at the local level. Financial and technical assistance are offered to implement best management practices.





77,048
feet of pasture division fence

46,578
feet of exclusion fence

6,507
acres of lime spread

1,337
acres of nutrient management

2,637
acres of frost seeding

124,241
square feet of heavy use area protection

Exigency program to provide help after emergencies

Beginning in the summer of 2022, funding assistance for West Virginia farmers impacted by future emergency situations became available across the 14 conservation districts.

Cooperators became eligible July 1 to seek cost-share assistance from their local conservation district to help install best management practices or make repairs on their farms after flooding, drought, damaging storms and other declared emergencies.





The statewide Agricultural Enhancement Program's (AgEP) Exigency Program made cost-share assistance available for: reseeding of winter-feeding areas during abnormally muddy conditions, help with irrigating crops when water is in limited supply, supplying water to livestock during drought conditions, temporary fencing, high tunnel and greenhouse repair, and establishing cover crops following drought conditions.

Past events that impacted cooperators and their farming operations, such as muddy conditions and later drought in 2019, led to discussion about how to be proactive in responding to emergencies, said Russell Young, conservation specialist and lead for the WVCA's Agricultural Enhancement Program.

The thinking was "to really start brainstorming all the ideas so when these events do happen, we've already thought about them instead of retroactively going back and saying, 'What can we do now?'" Young said. "Let's think about it now and let's get it in place so that we can just quickly deploy measures to assist cooperators."

A conservation district can decide to offer the AgEP Exigency Program when an emergency has been declared, either by a presidential disaster declaration, governor-declared state of emergency, the recommendation of the state Commissioner of Agriculture, the recommendation of either a county or state emergency board of the USDA-Farm Service Agency, or at least a "D1" moderate drought designation by the U.S. Drought Monitor.

If at least one county within the district has an emergency declared, conservation district supervisors could choose to offer the cost-share assistance to cooperators from any county within the district that have been impacted by the declared event.

Cost-share items available for reseeding winter-feeding areas could include seed and a seeder rental fee.

■ Items eligible for irrigating crops include: a portable water tank, water pump, portable pipeline, drip irrigation line, irrigation timer and more.

■ For water for livestock: portable watering troughs, water tanks, portable pipeline, pumps and more.

■ For temporary fencing: polywire, high tensile wire, temporary electric net fence, insulators, tighteners, staples, T-posts, corner bracing materials, wooden posts, fence chargers/energizers, ground rods, connectors and more.

■ For high tunnel and greenhouse repair: plastic repair kit, plastic repair tape, new plastic film, structural components, glazing materials, baseboards, doors, hardware and fans and ventilation.

■ For establishing cover crop: cover crop seed and a seeder rental fee.

A statewide subcommittee was formed in 2021 and met regularly in early 2022 to consider the exigency program for the state's 14 conservation districts.

See **EXIGENCY PROGRAM** on Page 26

Photos: Muddy conditions like in the photos above could make a farmer eligible for reseeding assistance.

Chesapeake Bay Program

Encouraging the use of voluntary best management practices to promote cleaner water in the Chesapeake Bay watershed in West Virginia.

Project	Federal	Match	Total
Eastern Panhandle BMPs	$170,000	$170,000	$340,000
Potomac Valley BMPs	$170,000	$170,000	$340,000
Chesapeake Bay Communications and Website	$6,000	$6,000	$12,000
PVCD Most Effective Basin Funding for Ag Best Management Practices Implementation	$54,681	$54,681	$109,362
Equipment and Supplies	$5,000	$5,000	$10,000
Conservation District Support- PVCD and EPCD	$10,000	$10,000	$20,000
Habitat Improvement Sleepy Creek Implementation	$15,000	$15,000	$30,000
WV Soil Tunnel Trailer	$10,000	$10,000	$20,000
Internships	$10,560	$10,560	$21,120
CREP Training and Outreach	$2,000	$2,000	$4,000





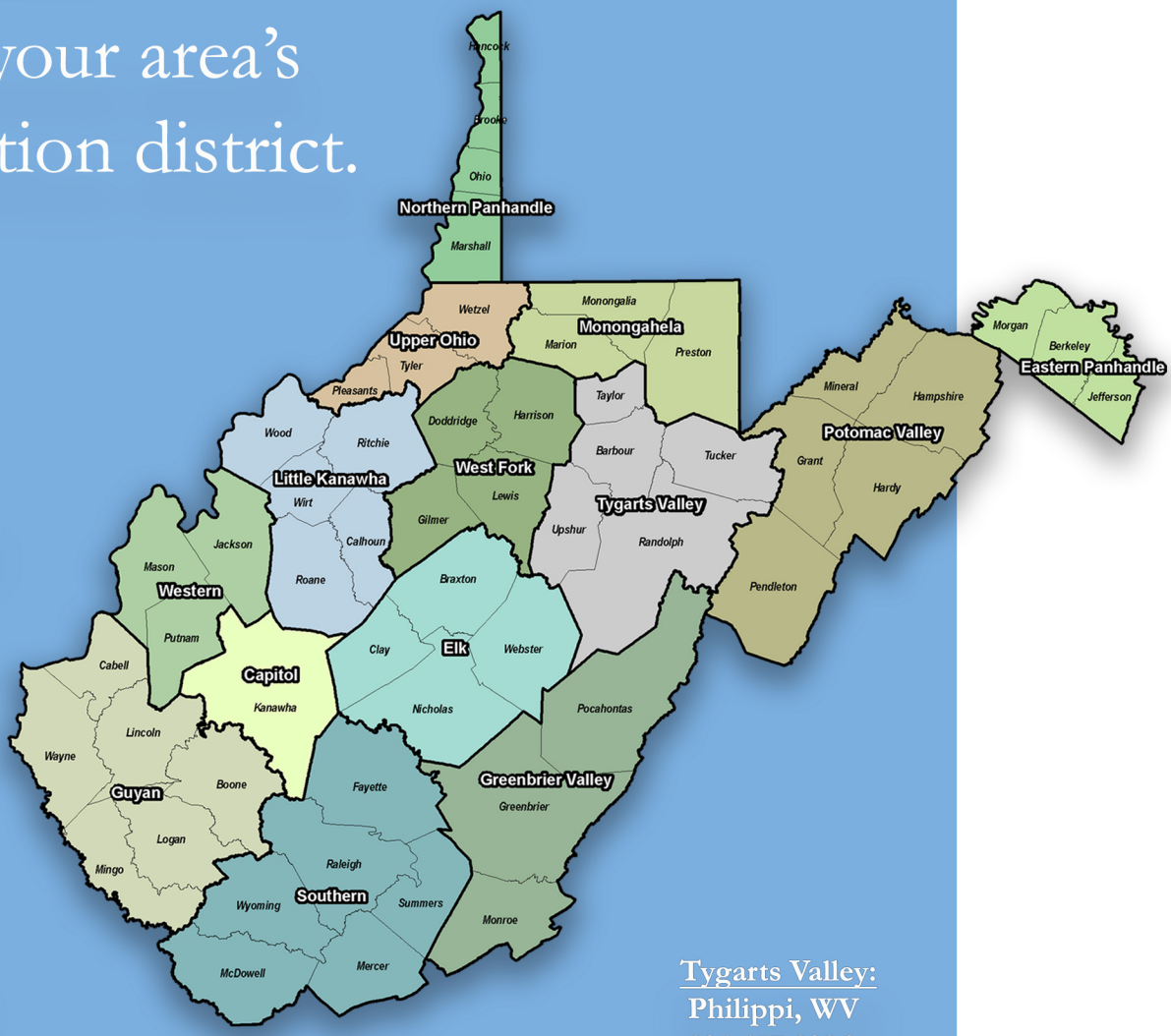
Nonpoint Source Program Key Figures

Nonpoint Source pollution results from land runoff due to rain or snowmelt, and may include pollutants like fertilizers, insecticides and herbicides from agricultural lands and residential areas.

Project	Conservation District	Federal Grant	Match	Total
Roof Runoff Management	Eastern Panhandle	$5,000	$3,633	$8,633
Back Creek	Eastern Panhandle	$156,000	$162,824	$318,824
Elks Run	Eastern Panhandle	$96,800	$64,780	$161,580
Indian Creek Phase III	Greenbrier Valley	$150,000	$100,000	$250,000
Second Creek Phase V	Greenbrier Valley	$120,000	$80,000	$200,000
Mudlick Run	Potomac Valley	$110,000	$73,335	$183,335
Green Infrastructure Training	Statewide	$15,000	$13,750	$28,750
Nonpoint Source Program Base Grant	none - agencywide	$116,900	$77,933	$194,833

Questions?

Contact your area's conservation district.



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Capitol Conservation District

2022 Highlights

In addition to a major dam project in the county at Elk Twomile No. 14 (see Page 2), Capitol Conservation District supervisors focused a lot of attention on outreach, partnerships, community development and education in 2022.



For example, the district is working toward a new outdoor classroom at Ben Franklin Career Center through partnerships, is developing new partnerships with West Virginia State University and the FFA program at Sissonville High School, and hosted its annual partnership meeting for partnership development and outreach in 2022.



Supervisors and staff continue community education through workshops, community gardens and community groups, and are working with organizations such as the Coal River Group for education, outreach, and restoration efforts.

A high tunnel workshop (*see photo above*) was held in the St. Albans area this fall, and CCD has participated in high tunnel continuing community education.

Supervisors also partnered with the Western Conservation District and Rock Branch Elementary to host a Hands-On Conservation and Ag Day for elementary school students on May 17.

District supervisors and staff also work with other districts and partner agencies to further education and conservation efforts with the Envirothon, the State Fair of West Virginia, the Appalachian Grazing Conference and more.

The district also continues to work on new grant opportunities for community outreach, support and education and worked with the West Virginia Association of Conservation Districts' legislative committee to make necessary legislative changes.

CCD held its spring seed giveaway early in the year, giving seeds out to encourage gardening. The district also sponsored three cooperators to attend the Appalachian Grazing Conference in March.

The district also welcomed its newest supervisor in 2022, Diane Lumadue, who is passionate about spending time on local waterways and improving water quality in the district.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Urban agriculture, lime, nutrient management, heavy use area protection, pasture seeding
- District contribution toward practices: $11,764.27.
- Combined district and cooperator contribution: $26,674.33.

Eastern Panhandle Conservation District

2022 Highlights

The Eastern Panhandle Conservation District in 2022 hosted workshops, a regional watershed group gathering and an extensive tour of recent projects, attended tree plantings on Sleepy Creek and at Cacapon Resort State Park, hosted a legislative forum for members of Congress and the state Legislature, and celebrated the 2022 West Virginia Conservation Farm of the Year winner.



State photo contest winners in the youth division won several top prizes, as well. The West Virginia Envirothon, meanwhile, was hosted at Cacapon in Morgan County in April. The district's supervisors have prioritized both support for existing Envirothon teams from the three-county area as well as recruitment of new teams.



In October, J. Ware III and his family, who own and operate Green Horizons Turf Farm in Jefferson County, won the 2022 West Virginia Conservation Farm of the Year award. Ware has been an EPCD cooperator.

In early November, WVCA staff and district supervisors joined and led parts of a tour of 319 projects and other recent projects in the area, including stops at Back Creek and Sleepy Creek.

Supervisors have also advocated for much-needed safety repairs to Warm Springs No. 7 dam in the Berkeley Springs area of Morgan County.

In 2023, supervisors look to continue improvements in the Chesapeake Bay watershed, hire an education and outreach specialist, stay in close contact with legislators and discuss priorities, continue discussion on how to help pollinators, work with farmland protection boards, watershed associations, the West Virginia Rivers Coalition, and local city and county government bodies.

Supervisors also want to continue their partnerships with USDA-NRCS and USDA-FSA, WVU Extension, local health departments on septic system projects and more. They want to continue to prioritize functioning septic systems and clean waters in Morgan, Berkeley and Jefferson counties.

During the 2022 fiscal year, 51 cooperators were served through the district's agricultural enhancement program.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Lime, pasture seeding, frost seeding
- District contribution toward practices: $61,342.48.
- Combined district and cooperator contribution: $142,601.57

Elk Conservation District

2022 Highlights

The Elk Conservation District had a busy 2022, getting involved in a forestry demonstration project establishing food plots for wildlife, continuing to be active in children's educational activities and sponsoring the fourth-place West Virginia Envirothon team.



Forester Johnny King said the district decided to aid some landowners who have an existing logging project on their land by creating food plots on their land with clover, winter wheat and other grasses where appropriate.





One objective behind the food plots was to help with invasive species control, which also helps the logging companies who would otherwise have to re-seed or mulch an area to prevent soil erosion after timber had been removed.

Wildlife such as wild turkeys and grouse could both benefit from the food plots, King said. In spring, the progress of the food plots will be reviewed.

The district also held its successful tree and plant sale again in 2022. Orders were taken during the winter months and were delivered in late March.

In April, the district sponsored the fourth-place West Virginia Envirothon team (see photo above), which was the Moorefield High School Blue team, which received $1,750 for their showing. Also that month, the district sponsored and hosted students at the Nicholas County Water Festival at Carnifex Ferry Battlefield State Park.

The district participated in an Earth Day activity at Davis Elementary School in Gassaway and each of the kids received a seedling.

Supervisors and staff co-sponsored with WVU Extension and USDA a small ruminant field day in May at the Cantrell Farm in Duck.

The district sponsored the WV Soil Tunnel Trailer at the Nicholas County Fair in July, as well.

District supervisors also supported students who attended both the junior and senior conservation camps in 2022.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Nutrient management, lime, pasture division fence, exclusion fence
- District contribution toward practices: $83,268.23.
- Combined district and cooperator contribution: $196,283.01.

Greenbrier Valley Conservation District

2022 Highlights

Greenbrier Valley Conservation District supervisors and staff were pleased to return to a sense of normalcy in 2022, and that included hosting in-person field days and a legislative banquet during the fall.

A field day was held Oct. 5 at Shawlin Hills Farm in Greenbrier County. Topics of discussion were rotational grazing, pollinators and beekeeping, soil health and fertility, and native warm season grasses.



A large turnout attended the district's latest legislative banquet on Sept. 8 at the WVU Building at the state fairgrounds in Fairlea. Outstanding farmers in Greenbrier, Monroe and Pocahontas counties were recognized during the banquet.



The GVCD supervisors look forward to working with newly elected delegates and senators and continuing their partnerships with returning legislators.
In the new year, the GVCD will host a Web Soil Survey workshop for cooperators, which will be organized by WVCA Conservation Specialist Kara Grosso. The workshop will get farmers familiar with an online tool that can help them learn more about their own soil.

A nonpoint source 319 project in the Indian Creek watershed, which includes Union and other communities mostly to its south and west, is providing cost-share for septic system pumping (50 percent up to $300) and repair or replacement (75 percent up to $5,000) of septic systems.

Similar septic pumping or replacement programs have been ongoing in the Meadow River and Anthony Creek areas.

In the Indian Creek watershed, a combined 37 projects have been completed or are in progress, including pumping, stormwater management, and septic system repairs/replacements.

The conservation district also has a robust agricultural enhancement program. The combined district and cooperator contribution for FY 22 was $310,874.81.

A total of 37 cooperators within the district benefitted from the agricultural enhancement program in FY 22.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Lime, exclusion fence, pasture division fence, watering systems
- District contribution toward practices: $112,779.43.
- Combined district and cooperator contribution: $310,874.81.

Guyan Conservation District

2022 Highlights

Guyan Conservation District supervisors honored several of their cooperators in 2022 and are looking for new ways to connect with both current and potential cooperators in the coming year.



Supervisors honored Bill and Marlene Woods of Boone County with a Farm of the Year award. The Woods family raises a variety of vegetables in their high tunnel, including tomatoes, beans, squash and strawberries. They have three horses and a corral at their home and also are active members of the Little Coal River Watershed group. Marlene, an associate supervisor in Guyan, also grows lavender on the hillside behind her house.



The district also recognized Ronnie Plybon, a cooperator from Cabell County, with a Century Farm award. His family farm dates back more than 100 years. The farm, which Plybon operates with his grandson, Devon Selbee, specializes in beef and hay.

The conservation district also has an active urban agriculture cost-share program. Urban ag is one of the top five agricultural enhancement program best management practices in the district. Fifty cooperators were served districtwide in fiscal year 2022.

The district also hosted a high tunnel field day at supervisor Ronnie Hager's farm in Lincoln County in May. Discussion during the field day focused on what to plant and when (succession planting), pest management and managing salts in high tunnels.

Guyan supervisors and their NRCS partners also embraced the efforts of Buffalo Elementary student Kenya Bailey from Wayne County, who promoted honeybee conservation as part of her social studies project, and generated lots of "buzz" and local media attention last spring.

Kenya focused on raising awareness about why honeybees are important pollinators and what other kids could do to protect them.

The Guyan Conservation District enjoys a good working relationship with some other government entities, like the Wayne County Commission, and looks forward to working more closely with officials in other counties throughout their six-county conservation district to bring more attention to conservation.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Heavy use area protection, lime, nutrient management, pollination, urban agriculture
- District contribution toward practices: $59,556.62.
- Combined district and cooperator contribution: $90,526.33.

Little Kanawha Conservation District







2022 Highlights

The Little Kanawha Conservation District added a district work crew for the first time in 2022.

"We have added a work crew and that has been good," said board chairman Bob Buchanan. "We have done far more than what we anticipated we would do, and we've had growing pains."

The district will host its inaugural informational winter dinner for potential cooperators to discuss alternative nutrition programs and more.

Debris was cleaned out of the riser at North Bend Lake, and the district is preparing to put out bids for a debris boom at the lake.

"Plus, we have a push to educate our new legislators in this district [about conservation]," Buchanan said, "and the experienced legislators."

In October, Buchanan received the top annual award presented to a West Virginia conservation supervisor -- the Carroll Greene Award, during the WVACD's quarterly meeting in Sutton. This "Supervisor of the Year" award is given to a supervisor who is "doing an outstanding job promoting wise conservation and development in their local conservation district."

Supervisors are also pleased with their agricultural enhancement efforts for the year, which included a big emphasis on invasive species management. In all, 55 cooperators were served in FY 22.

A big emphasis in 2023 is going to be on educating LKCD cooperators about best management practices and also asking them what programs they want.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Heavy use area protection, watering systems, lime, pasture division fence, invasive species management
- District contribution toward practices: $92,550.26.
- Combined district and cooperator contribution: $174,874.15.

Monongahela Conservation District

2022 Highlights

The Monongahela Conservation District had a busy year growing their agricultural enhancement program and sharing knowledge about conservation with the public and cooperators.

Supervisors and WVCA staff who work with the district attended the Tomato Festival in Fairmont and a weekend farmers market at Mylan Park in the Morgantown area, where they shared pollinator seed packets and rain barrel kit builds/demonstrations.





The district also awarded $5,000 to Pleasant Valley Elementary School in Marion County to help get their high tunnel project off the ground.

Similarly, three demonstration small greenhouses (see top photo), which is one of the district's urban agriculture practices, have been built in Marion and Preston counties and can be used to demonstrate to potential cooperators how to build their own small greenhouse.

MCD Chairman Mark Myers also noted the mitigation work that was done through planting trees downstream of Upper Deckers No. 1 dam in Preston County. The major rehabilitation of the dam can be used as a demonstration of projects that can be done elsewhere around the state, he said.

He also noted the strong partnerships the conservation district has built with partners like the Division of Forestry, WVU Extension and NRCS.

"There's a lot of people who bring different things to the table each month," he said.

Supervisors with MCD want to get more young people involved in urban agriculture and conservation.

Another highlight was getting back to working in person within the district in 2022, and moving on from COVID-19.

Myers added that participation in the district's agricultural enhancement program was tremendous in the past year. The combined district and cooperator contribution was $115,451.18 in FY 22.

In all, 31 cooperators were served by the district's agricultural enhancement program.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Heavy use area protection, lime, pasture division fence, exclusion fence, nutrient management
- District contribution toward practices: $65,558.24.
- Combined district and cooperator contribution: $115,451.18.

Northern Panhandle Conservation District







2022 Highlights

For many years, the Northern Panhandle Conservation District has prided itself on educating both young people and adults about conservation.

Hands-On Ag Day – a chance for fifth-grade students to experience agriculture and conservation in person -- returned to Marshall County for the first time in three years, and 380 people were in attendance. Another Hands-On Ag Day was held in Ohio County, the first ever for the county.

NPCD supervisors said that's a good way to educate students but also their parents, as well.

The district also hosted two high tunnel/raised bed planting days with homeschool students.

The district in 2022 also held its under-served outreach dinner, which has long been a successful way to pick up new cooperators for the conservation district.

Future plans include hosting a tax workshop and also a safety workshop for farmers, which continues the goal of finding new ways to educate the public.

For these efforts, NPCD received the 2022 Education District of the Year award during the West Virginia Association of Conservation Districts' annual awards banquet. (See the photo above.) The district has won the award several years in a row.

At the banquet, NPCD supervisor Amy Wade also was named the Association's Rookie Supervisor of the Year (see above photo).

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Pasture division fence, lime, watering systems, exclusion fence, heavy use area protection
- District contribution toward practices: $48,358.87.
- Combined district and cooperator contribution: $139,170.20.

Potomac Valley Conservation District







2022 Highlights

A wide range of projects and activities kept the Potomac Valley Conservation District busy in 2022, including dam repairs and mowing, a field day, a district farm of the year winner, a tree sale in early April and equipment rentals.

The district has more than 70 of the state's 170 small watershed dams, and a seep repair project at South Fork No. 5 in Hardy County was a high priority during the year.

At New Creek No. 1 and New Creek No. 17 in Mineral County, new trash racks were installed to keep large woody debris out of the dams' risers.

The district awarded a farm of the year this summer, which was Deans Gap Farm at Fort Seybert in Pendleton County, which is owned by Scott and Becky Rightsell. The Rightsell's farm competed in the 2022 West Virginia Conservation Farm of the Year competition.

In September, the district held a field day in Wardensville. Topics of discussion included inter-seeding of summer annuals into pastures, extending the grazing season through rotational grazing, and alternative and cost-effective sources of fertilizers.

The district is also working with Pendleton County on a 7-1-3u agreement, which allows them to partner up with the county on projects.

In the summer of 2023, the district plans to host the West Virginia Association of Conservation Districts' quarterly meeting, and has begun making preparations.

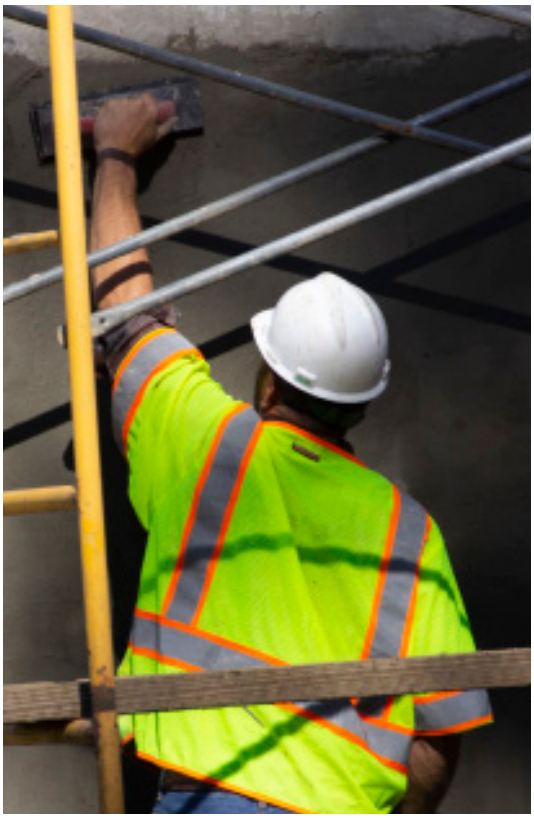
Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Watering systems/exclusion fence, lime, invasive species management, pasture seeding, frost seeding
- District contribution toward practices: $109,337.22.
- Combined district and cooperator contribution: $183,668.39.

Southern Conservation District





2022 Highlights

Riser repairs and sediment removal at Brush Creek No. 4 and No. 5 in Mercer County were completed in 2022. The gates on both dams were closed in March, signaling the end of those construction projects (see photos above).

The district also revived its successful Women in Agriculture Day for the fifth time in May 2022 at the Tamarack in Beckley, and about 25 attended the event. Another outreach effort planned for May 2023 in Wyoming and McDowell counties will be geared toward teaching fifth-grade students about conservation.

The Canaanland (Testerman) Farm demonstration project in the Pipestem area is about 75 percent completed, and a field day will soon be held at the farm.

The Pipestem Creek watershed septic system project was underway in 2022 and will continue into the new year. The project offers cost-share assistance to eligible homeowners in the Summers County area who need pumping, repair or replacement of septic systems and to cooperators who implement agricultural best management practices to improve water quality in the watershed.

Southern's work crew, which spent substantial time working on mowing and dam repair projects in the Potomac Valley in 2022, also cut and removed brush in the entire flood control channels of Little Whitestick Creek, Soak Creek and Cranberry Creek within the Southern district.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Lime, pasture division fence, heavy use area protection, exclusion fence, nutrient management
- District contribution toward practices: $80,968.85
- Combined district and cooperator contribution: $170,806.92

Tygarts Valley Conservation District







2022 Highlights

The Tygarts Valley Conservation District had an active year in 2022 in several areas.

The district has a full board for the first time in four years, and district cooperators in TVCD's five counties are working more closely now with the district work crew.

Supervisor Donnie Tenney (*at far left in photo above right*) was chosen in July as president of the West Virginia Association of Conservation Districts, and he has stayed active across the state.

In 2022, supervisors also were active in promoting urban agriculture across the district.

In the new year, TVCD supervisors look to promote both pollinators and biochar, a newer practice that Tenney has taken an active role in.

Biochar is a carbon-rich substance used in planting that can become a habitat for beneficial soil microorganisms.

The supervisors also want to promote more educational programs in schools, communicate and promote the value of conservation programs, and recruit more cooperators. The TVCD supervisors also would like to make participation in their programs more user friendly in 2023.

In FY 2022, 43 cooperators were served by the agricultural enhancement program.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Watering systems, heavy use area protection, nutrient management, lime, pasture division fence
- District contribution toward practices: $62,359.23.
- Combined district and cooperator contribution: $94,720.09.

Upper Ohio Conservation District







2022 Highlights

The Upper Ohio Conservation District bought $1,000 of biochar so producers in the district could try it out. Biochar is a carbon-rich substance and can become a habitat for beneficial soil microorganisms.

Six cooperators in the district's three counties are participating in the pilot to see how biochar reacts with the plants they're producing, whether it be in high tunnels, pastures or hay fields.

The district also is seeking grant funding to teach people about biochar and grow produce in it. That could also lead to establishing biochar as an agricultural enhancement best management practice within the district.

Also in 2022, students from Boreman, Sistersville and New Martinsville elementary schools were able to experience the WV Soil Tunnel Trailer. The Soil Tunnel Trailer also visited the Tyler County Fair.

UOCD supervisors also held an invasive species training course and a high tunnel workshop, as well.

In August, an Area Farm Tour visit was held at JC and Barbara Nuss's Woodridge Farm in the Sistersville area. The farm was the district's representative in the West Virginia Conservation Farm of the Year competition.

Among the conservation district's many partners this year were WVU Extension, USDA-NRCS, the WV Division of Forestry, USDA-FSA, Tyler and Wetzel county boards of education, the City of New Martinsville, the Wetzel County Center for Children and Families and local county commissions within the district.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Pasture division fence, heavy use area protection, lime, urban agriculture, watering systems
- District contribution toward practices: $39,446.85.
- Combined district and cooperator contribution: $67,288.54.

West Fork Conservation District







2022 Highlights

West Fork Conservation District recognized several outstanding cooperators in 2022.

The district's Conservation Farm of the Year was the Wilmoth Farm, operated by Roger "Butch" and Terri Wilmoth of Lost Creek. The Wilmoth's picturesque, partly hilltop farm competed for the West Virginia Conservation Farm of the Year award, and performed well in the competitive eastern area of the tour.

The 2022 Grassland Farm Award for West Fork was given to Dr. Robert Stenger, DVM, and John Stenger. Their operation includes multi-species grazing, where they have cattle, sheep, and goats. They've utilized adaptive grazing management strategies, including extended grazing and rotational winter feeding, to ensure they have a productive and sustainable operation.

The district did a lot to support young people and its cooperators in 2022. It provided funding for students to attend both junior and senior conservation camps. Supervisors provided funding for Liberty High School FFA students to attend competitions.

They also contributed entry fees for cooperators to attend the 2022 Appalachian Grazing Conference in Morgantown. The district also performed more forage testing for cooperators than ever before in 2022.

The West Fork Conservation District continues to provide equipment rentals for its cooperators. A total of 41 cooperators benefitted from the agricultural enhancement program in fiscal year 2022, and the district funded more than $91,000 in cost-share contributions.

In 2023, the district hopes to start an urban agriculture program and also would like to host a field day.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Lime, heavy use area protection, watering systems, pasture division fence, nutrient management
- District contribution toward practices: $91,340.38.
- Combined district and cooperator contribution: $165,953.94.

Western Conservation District







2022 Highlights

Jackson County farmer Jason Meadows, a cooperator in the Western Conservation District, was the West Area finalist for the West Virginia Conservation Farm of the Year competition.

Meadows' many conservation practices put in place on his farm include rotational grazing, pasture division fence, lime and frost seeding and a roof runoff management system.

He also uses cover crops like winter wheat and rotates crops like corn and soybeans. Jason also no-till plants his crops to not disturb the soil and practices cross-slope farming, which controls water runoff to prevent erosion.

His farm first won at the County, District and Area levels before taking part in the statewide competition.

Supervisors with the Western Conservation District also want to emphasize that the district covers the cost of two forage samples for any cooperator who requests one.

On April 27, the district held a successful land judging contest for high school students in Jackson County, and plans to sponsor the contest again in 2023.

They also would like to get more students involved in the West Virginia Envirothon and district poster and photo contests. An area forestry contest also may be in the works for 2023.

In Fiscal Year 2022, 55 cooperators were served by the agricultural enhancement program.

Conservation by the Numbers:

Top agricultural enhancement best management practices:

- Lime, watering systems, pasture division fence, exclusion fence, frost seeding
- District contribution toward practices: $79,037.66.
- Combined district and cooperator contribution: $166,905.19.

Education and Outreach

In FY 22, **26,300** West Virginia residents and families were reached by the WVCA Education and Outreach program.

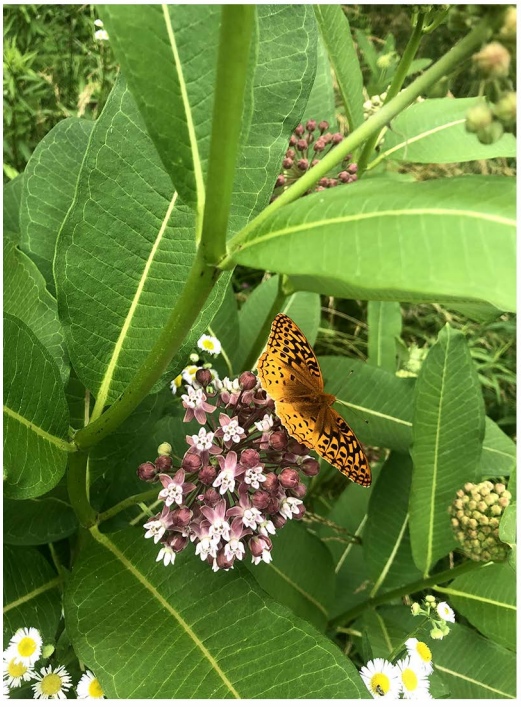
The WVCA Education and Outreach program provides conservation-based educational programming across all of West Virginia's 55 counties. This statewide program is delivered through the West Virginia Soil Tunnel Trailer (WVSTT), a mobile classroom unit, and conservation-based curriculum development and distribution. More than 90 percent of all program delivery is in-person by the WVCA Education and Outreach specialist, Aimee Figgatt.

Approximately 19,200 individuals visited the West Virginia Soil Tunnel Trailer mobile classroom. The Soil Tunnel Trailer is an immersive educational exhibit that allows visitors to tour the underground ecosystem through self-guided tours or through presentations provided by WVCA staff. It's focused on providing an understanding of soil and water health, the animals, insects, and microbial activity within the soil in relation to soil and water health, and the benefits of specialty crop production for the health and financial betterment of West Virginians. This innovative program allows the WVCA to have a broad educational reach across all 55 counties.

An additional 4,200 students across West Virginia received the WVCA printed curriculum in their classrooms. The WVCA conservation-themed curricular resources correspond with the West Virginia Department of Education Content Standards and Objectives. The lessons and hands-on activities focus on soil health, water quality, and the preservation and conservation of natural resources and pollination plants and insects. Social media, webcams, YouTube and email communications also are utilized in the program delivery.

The pollinator seed distribution program also provided 2,900 families with conservation-focused infographics on best management practices (BMPs).





Jefferson County turf farm wins 2022 West Virginia Conservation Farm of the Year

Jefferson County farmers specializing in the marketing and sale of turfgrass sod – while controlling erosion and building organic matter in their soil – received the 2022 West Virginia Conservation Farm of the Year award during a luncheon Oct. 18 in Flatwoods.

Farmer J. Ware III of Green Horizons Turf Farm near Kearneysville received the award during the West Virginia Conservation Partnership Conference banquet. He operates the farm with his wife, Andrea, son, August, and daughter, Edy.



The Wares' farm was in the running against Jason Meadows' cow/calf operation at Ripley in Jackson County. Both farms had demonstrated a commitment to conservation practices that protect soil, land, water and related resources.

Each year, one West Virginia farm receives the Conservation Farm of the Year honor after winning at the county, district and area levels. Judges visited the farms in late August and graded each on their use of best management practices, impact on ecological systems and community-based activities.





In addition to Green Horizons Turf Farm receiving a $1,000 award, J. Ware also will receive 200 hours, or three months, use of a John Deere tractor from Middletown Tractor Sales in Fairmont, with an option to later purchase the tractor at a discounted rate.

The Wares grow and maintain more than 125 acres of turfgrass sod, and the operation is one of only two turf farms in West Virginia. J. Ware III contracts to sell his turf to PGA golf courses and country clubs in the mid-Atlantic region.

He is quick to dispel the idea that sod harvesting strips topsoil. He's researched and cultivated growing practices that help his crop stand out and contribute to soil conservation.

He notes that topsoil is not removed with the sod, and that the turfgrass sod is left growing until a mature root system has been developed. After the sod is harvested, cover crops or soybeans are planted to build soil structure, replenish nutrients, and control erosion.

The Wares' operation also includes hay, grain, and beef cattle.

They have implemented agronomic best management practices on their farm, which include rotational grazing of cattle over nearly 88 acres, application of lime on 208 acres, pasture re-seeding, more than 2,800 feet of fencing, water pipeline for cattle, an irrigation system, precision soil sampling on 120 acres of sod fields, and more.

The Wares have been involved in the community and have shared their resources and knowledge, hosting agriculture field days, welcoming agriculture teachers and garden clubs to the farm, and sharing their knowledge and experience with local farmers about forage production, fertilizing and harvesting. J. Ware also serves on the Jefferson County Planning Commission.

Each member of the Ware family contributes to the farm's operation. August, 8, has his own beef herd of seven cattle and planted his own half-acre pumpkin patch, his first, earlier this year.

In an interview with The Journal newspaper of Martinsburg, J. Ware said that August was elated when the family found out they won the award.

Envirothon 2022 Highlights



$20,700
In scholarship money, awards and adviser/school stipends

72
Students participated

Nearly **3,000**
Students participated since 1997

Nearly
$245,000
In college scholarships granted since 1997

WVCA's drone fleet gets off the ground in 2022; new tools to be used for a variety of purposes in '23

A new tool first used in 2022 will help the WVCA promote and gauge conservation in West Virginia through a whole new lens.

The Agency's drone fleet took its first flights in 2022, and WVCA is planning for much more in the year to come.

During the spring, WVCA purchased five drones for Agency use. Communications Specialist Davin White earned his Federal Aviation Administration (FAA) Part 107 remote pilot certification and began flying two of the drones for Agency work in late August.



Several more Agency staffers are planning to take their FAA Part 107 remote pilot examination in the coming year, following a two-day training that was held in Preston County in the fall.



The Agency's drones will be used for various purposes. For instance, the first flights have been geared largely toward promotional, communications and informational purposes. Flyover videos have offered a bird's eye view of the two state Conservation Farm of the Year finalists' operations, Green Horizons Turf Farm in Jefferson County and Jason Meadows' Farm in Jackson County.

During the fall, dam repair work on Elk Twomile No. 14, South Fork No. 5 and Upper Grave Creek No. 1 was videoed by drone. Video and photos from these construction projects were used during presentations to state lawmakers, the State Conservation Committee and conservation agency staff from across the country at the National Association of State Conservation Agencies (NASCA) annual conference in Nashville, Tenn.

Yet in the coming months, we look forward to using the drones for far more purposes.

The Agency's Watershed division can use drone footage to monitor water flow into the dams or to monitor slips, seeps or landslides over time. Before and after photos can show changes. The drones also can be used to build maps of dams or watersheds through modeling.

They also can be used for stream survey work, emergency watershed program/post-flood work, closer inspection of a dam's riser, debris boom, or flood pool, and for general dam inspections.

After a flood, drones can aerially survey large, inaccessible areas of a stream that have been impacted by the flooding.

The Conservation Services division can use the drones to take before and after photos of agricultural best management practices that have been established on a farm, and for other record-keeping purposes.

Conservation specialists also could use aerial images taken from the drones to design new farm plans for cooperators.

For videos that feature drone footage, see the Conservation farm finalists' videos on our homepage at www.wvca.us, or visit our YouTube Channel.

TOP: An aerial view from above the pool of the new riser at Upper Deckers No. 1 dam in Preston County. BOTTOM: This Autel Evo II Pro is one of the drones in the WVCA's new fleet.

WATERSHED PROJECTS from Page 2

The total estimated cost of the project is nearly $382,876.

Upper Buffalo No. 4 in Marion County, commonly referred to as Curtisville Lake, also was due for a seep repair in 2022 to the dam's groin.

Like Elk Twomile No. 14 and South Fork No. 5, most of the water originated from Upper Buffalo No. 4's left abutment, said WVCA Engineer Levi Cyphers.

A drainage collection system and a weir box were both installed to correct the problem.

While there were similarities, Upper Buffalo No. 4 had a smaller footprint than the other two projects, he said. The total estimated project cost is $192,687.

The most extensive collection system was installed at Upper Grave Creek No. 1 at Cameron in Marshall County, where some seepage and a needed slope reconstruction had been identified.

Subsurface and surface drainage improvements were needed, and the repairs were made right up against the City of Cameron's water treatment facility. The dam's reservoir is the city's water source.

Work crews upgraded gutter riprap and regraded the downstream bench to provide positive drainage at Upper Grave No. 1.

"All that was to improve surface water runoff," Cyphers said. "Because … if water sits there, it's going to infiltrate and saturate."

The estimated total completion cost of the project is $529,710.

Among other projects, repairs were completed at Brush Creek No. 4 and No. 5 in Mercer County in early 2022 to correct deficiencies of concrete spalling and to replace hardware on the dams' riser structures.

At Brush Creek No. 4, in the spring of 2020, the pool level was below the riser's inlet yet was still allowing a significant amount of water to flow through and out of the dam's principal spillway pipe.

If the pool is below normal level, you should not see any water exiting the principal spillway pipe, so that tells you there's a problem. A similar but less severe problem was noticed at Brush Creek No. 5.

The repairs to Brush Creek No. 4's riser were extensive, and called for some rebar replacement and newly poured concrete in three sections of the dam. The corrections at No. 5 weren't as complicated, and included replacing an existing patch with new concrete and fixing a few other smaller areas.

New stainless-steel gates were installed at the dams in early 2022.

Risers and gates play a key role in regulating the normal pool level and provide a means of draining the flood pool if necessary.

Trash racks

At 44 dams across the state, trash racks have been identified as needing replaced. Over many years, the galvanized steel used to build trash racks corrode and weaken.

Trash racks collect large debris and prevent it from clogging a riser structure's intakes. Risers allow a dam to function properly.

Twenty-five of the trash racks were replaced across the state in 2022 and the remaining 19 will be replaced in 2023.

Work remains to install new trash racks in the Potomac Valley, Northern Panhandle, Elk and Southern conservation districts.

Future Needs

Similar needs are seen throughout the state, and projects will be prioritized based on available resources and the need for repair.

Some examples of need are:

Brush Creek No. 10 in Mercer County has seep, riser, outlet channel and toe drain issues that need to be addressed.

Upper Buffalo No. 39 in Marion has a seep that needs repaired.

Polk Creek No. 6 has a slip repair needed at the auxiliary spillway (ASW).

"We're buying down a little bit of risk on a lot of dams," Cyphers said. "We're addressing the immediate concerns."





***Far left**: South Fork No. 5 dam during on-site excavation late this summer in Hardy County. **Left**: Closing the gate at Brush Creek No. 4 in Mercer County.*

EXIGENCY PROGRAM from Page 4

Five conservation district supervisors joined West Virginia Conservation Agency staff and representatives from the USDA-Natural Resources Conservation Service, the USDA-Farm Service Agency and the WV Division of Forestry in crafting the program.

WVCA Conservation Specialist Sigrid Teets organized the meetings and said it was important to work through a subcommittee because it took time and plenty of discussion to go into detail on each best management practice, the site criteria and materials available for cost share.

"What we ended up with is a really good product," Young said.

For more information about the exigency program, contact your local conservation district. (**See page 6.**)

Favorite photos from 2022







***PHOTOS**:*

***Top left**: This copperhead was part of the program during a WV Envirothon training at Holly-Gray Park in Braxton County.*
***Top right**: A ripe tomato at Mitch Stemler's Daystar Farm in Barbour County.*
***Left**: Ronnie Hager, a Guyan Conservation District supervisor, at his high tunnel in Lincoln County during a field day in May.*

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