



*West Virginia*  
Conservation Agency



*2018 Annual Report*







*West Virginia*  

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Conservation Agency

**Brian Farkas**  
Executive Director  
[bfarkas@wvca.us](mailto:bfarkas@wvca.us)

1900 Kanawha Blvd., E.  
Charleston, WV 25305-0193  
Phone: (304) 558-2204  
Toll Free: (800) 579-8643  
Fax: (304) 558-1635  
**[www.wvca.us](http://www.wvca.us)**



## State Conservation Committee

### Ex-Officio Members:

**Kent Leonhardt**, Chairman  
Commissioner  
West Virginia Department of Agriculture

**Ken Blemings**  
Interim Dean  
WVU Davis College of Agriculture,  
Natural Resources and Design

**Steven C. Bonanno**  
Director  
WVU Extension Service

**Austin Caperton**  
Cabinet Secretary  
West Virginia Department of  
Environmental Protection

**Barry Cook**  
State Forester  
West Virginia Division of Forestry

**Bill Stewart**  
President  
West Virginia Association of  
Conservation Districts

### Appointed Members:

Rocky Adkins  
Eli McCoy  
Angie Rosser  
Timothy VanReenen

### Advisory Members:

Roger D. Dahmer  
USDA - Farm Service Agency

Louis Aspey  
USDA-Natural Resources Conservation Service

## VISIT US ONLINE:

[www.wvca.us](http://www.wvca.us)

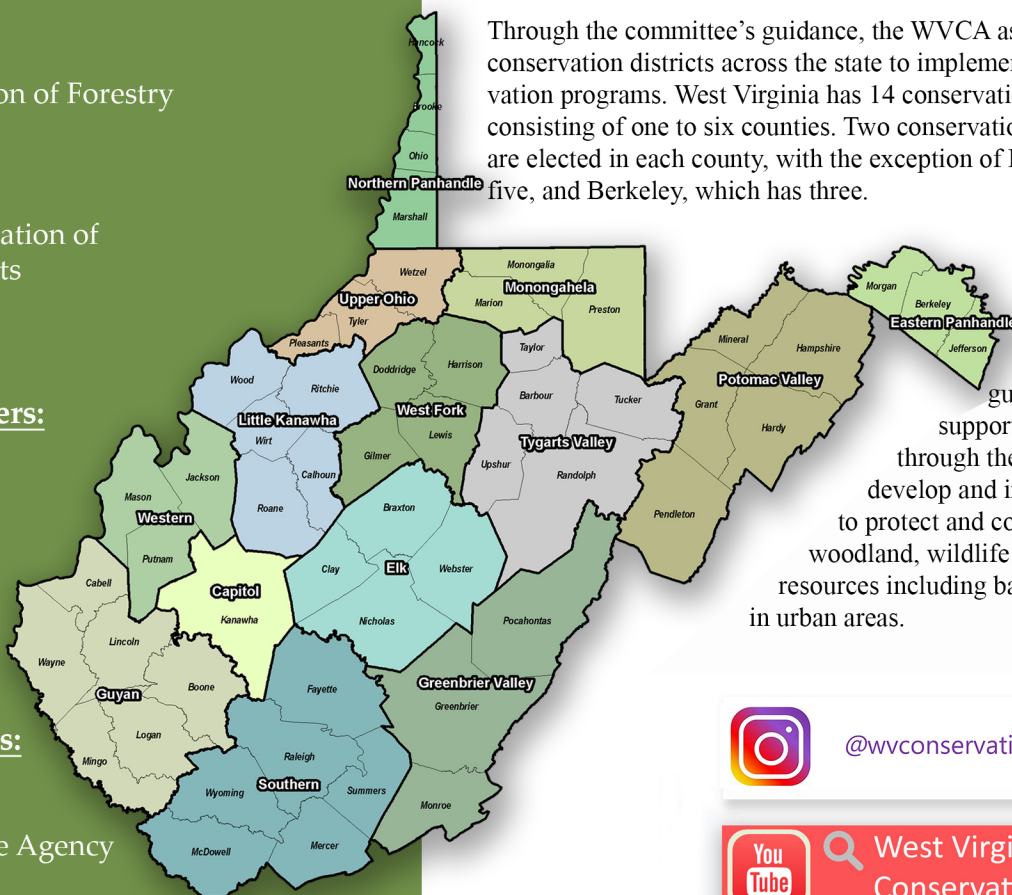


## Introduction

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 2018)

\$514,457

Cost of maintenance and repairs to dams

2,004

Watershed dam inspections yearly

170

Dams considered “high hazard”

91

Dams are 50 years of age or older

\$90 million

In flood protection provided to West Virginia each year



**\* 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.**





## Team effort eases erosion, bridge issue in Marshall Co.

The West Virginia Conservation Agency was a key player in a project that eased a real hardship for several Northern Panhandle residents in 2018.

The Marshall County Commission needed help to repair a streambank and replace a bridge on Little Grave Creek in Glen Dale.

Summer flooding in 2017 had caused a bridge on the creek to partially collapse, limiting vehicle traffic across the creek to a low-water concrete pad. Eight homes on the opposite side of Little Grave Creek accessed the bridge, and the streambank needed to be stabilized before a new bridge could be built.

The county and residents in the neighborhood noticed issues and began talking about stabilizing the bank about four or five years ago, said Marshall County Administrator Betsy Frohnapfel.

“After the floods in 2017 it became a much more dire issue,” she said.

Their old bridge was not suitable for vehicles after the flooding; residents could only use it for walking access.

“So in order for them to be able to construct a new bridge, the creekbank project had to be done.”

Frohnapfel said the project was achievable only because of the partnerships involved.

See **MARSHALL EROSION** On Page 3





## MARSHALL EROSION continued from Page 2

“Without the conservation agencies, the Commission never would have been able to do this project,” she said.

The Marshall County Commission, the WVCA and the Northern Panhandle Conservation District signed an agreement on financial cost-sharing for the bank stabilization portion of the project.

The WVCA’s Division of Watershed Projects and the NPCD also worked with the USDA’s Natural Resources Conservation Service (NRCS) and other agencies on the engineering and design work and to secure the needed permits.

NRCS designed the bank stabilization. West Virginia Voluntary Organizations Active in Disaster (VOAD) designed and built the new bridge.

“The creekbank looks wonderful. Residents on both sides of the creek are ecstatic,” Frohnapfel said. “There were residents who lost about eight to 10 feet of their yard because of the way the bank had been crumbling.

“We’re hoping that this will stabilize that bank, they won’t see any more receding of their property,” Frohnapfel said, adding, “And the stream has been put back to its natural form so we won’t end up with the pools we had before, undercutting the bridge.”





# Agricultural Enhancement

## Key Figures (FY 2018)

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 WVCA. Supported practices are determined at the local level. Financial and technical assistance are offered to implement best management practices.



111,350  
feet of pasture  
division fence

50,675  
feet of exclusion fence

10,731  
acres of lime spread

1,176  
acres of nutrient  
management

2,263  
acres of frost seeding

893  
acres of invasive  
species management



# Greenbrier Co. farm is 2018 Conservation Farm of the Year

The D. Frank Masters Farm, a cow/calf operation that sits on about 74 acres of land in an area of Greenbrier County near Organ Cave, was named the 2018 West Virginia Conservation Farm of the Year during a banquet in October.

The farm has served as an example for others in the Greenbrier Valley Conservation District. Frank Masters uses a type of “central hub” on his farm for watering and grazing. Limestone in the subsurface makes it difficult to install water-line on the property. Five paddocks lead into the central watering hub, with gates into each grazing unit.

WVCA Conservation Specialist Dennis Burns noted that the practices on Masters’ farm have been introduced on other farms in the area -- the idea of providing a central location for rotating cattle and a central location for water.

Masters has installed exclusion fences that block cattle from his ponds. He’s planned to add alternative energy practices on the farm, like solar panels, and added a high tunnel in 2018 to extend his growing season.

The various conservation practices Masters has undertaken have allowed him to expand his herd size and cut more hay.

“My hay production has increased. It used to be somewhere around 3 tons to the acre, 3 and 1/2 tons to the acre, and currently this year alone for the first cutting I produced 4 and 1/2 tons to the acre,” Masters said.

Before WVCA worked with Masters to develop a rotational grazing system on the farm, a lot of water runoff went toward the nearby cave, Burns said during a farm tour in July. The West Virginia Conservation Agency’s 319 program helped Masters add water sources and fencing on the property so the cattle would rotate, which kept “pressure off this area that drained directly towards the cave,” Burns said.

Masters has sought to share his knowledge about

farming with others. Chefs from the The Greenbrier have visited the farm (his eldest son Jared is one of them). He’s also welcomed small operators and young people considering farming to work with his cattle and learn more about handling livestock and the business of farming.



Masters would tell people who are interested in farming that with all the conservation knowledge available today, “you can produce a lot on a small tract of land.”

“It doesn’t have to be a large farm to be productive or to make money,” he said.

During the fourth annual Farm-to-Table Legislative Breakfast in January 2019, Masters talked in detail to legislators about his farm and the conservation practices he’s put in place. Later that day, he was recognized on the floors of both the West Virginia Senate and the House of Delegates.

See **CONSERVATION FARM** On Page 6



**Top Left:** Jordon Masters, left, and his father, D. Frank Masters, share a laugh at Frank Masters' farm in the Organ Cave area of Greenbrier County. **Top Right:** Frank Masters' hay production has increased from about 3 tons per acre to 4 and 1/2 tons per acre since he's implemented conservation practices on his farm.

#### CONSERVATION FARM continued from Page 5

Masters also has done media interviews and was a noted guest at the 2019 Appalachian Grazing Conference in Morgantown.

This type of public exposure and recognition of the West Virginia Conservation Farm of the Year winner is something a committee of stakeholders had in mind when revisions were made to the contest for 2018. The committee had the idea to really showcase the work of the farmer over time and encourage the farmer to act as a spokesperson for conservation in the state.

The farm is not Masters' primary responsibility, as he also works full time as a licensed professional counselor.

"I definitely love farming; it's kind of like a hobby for me," Masters said. "I know I work a full-time job, but coming here and working on the farm is a great stress reducer for me."

Masters' son, Jordon Masters, put what he's learned about agriculture to good use when he started his own produce company in 2015. MicroGenesis produces microgreens like cilantro, sunflower, garnet red amaranth, nasturtium, red-veined sorrel, parsley, gem marigold and more.

MicroGenesis strives for a consistent product that tastes good, and Jordon Masters has sold the microgreens to restaurants in Morgantown, at The Greenbrier and in Nashville, Tenn., among others.

The two other finalists for the 2018 WV Conservation Farm of the Year were the Hunter Family Farm near Ripley in Jackson County and Ward Grass Cattle at Mill Creek in Randolph County.



**Above:** A pond with exclusion fence surrounding the perimeter at the D. Frank Masters farm.



# WV's Chesapeake Bay efforts paying off at midpoint of Bay health assessment

In 2018 the U.S. Environmental Protection Agency released its midpoint assessment of the progress made toward reducing nitrogen, phosphorus and sediment pollutants into the Chesapeake Bay.

West Virginia's Chesapeake Bay Program hit all its Total Maximum Daily Load (TMDL) 2017 targets for nitrogen, phosphorus and sediment reduction. That's helped to improve the health of the Bay as well as the Potomac River.

The improvements to the Bay have been seen in measurable ways, according to the EPA, including record acreage of underwater grasses and the highest estimates of water quality standards reached in more than 30 years. These efforts also help to improve dissolved oxygen levels and ultimately better the aquatic life in the Bay.

2017 was the midpoint year for the restoration goals the Chesapeake Bay Program partnership set under the Chesapeake Bay TMDL plan nearly a decade ago. All practices are to be in place by 2025, with the practices that were put in place by 2017 meant to achieve 60 percent of the needed pollutant reductions.

According to the EPA, West Virginia is on track to meet each of its 2025 targets.

While West Virginia alone hit all its 2017 targets, all six states and District of Columbia that make up the

collective Bay watershed states hit the targets for phosphorus and sediment reduction in 2017 but did not achieve the combined goal for reducing nitrogen.

In 2018 and in 2019, West Virginia was preparing for its Phase III Watershed Implementation Plan (WIP 3). During the summer of 2018 a series of stakeholder meetings were held to update people and interested organizations on the progress of the WIP 3.

Each state (and D.C.) has been assigned revised nitrogen, phosphorus and sediment reduction goals that will need to be achieved by 2025. West Virginia's annual targets will be 8.22 million pounds of nitrogen and 432,000 pounds of phosphorus. The WIP 3 should be finalized by the summer of 2019.

West Virginia's successes included a total of 47,731 linear feet of nonurban stream restoration installed by 2018, which was more than double its Phase II WIP commitment. Another 66,500 linear feet are planned from 2019 through 2025, as part of the WIP 3.

West Virginia's plan to improve Bay health will continue to include agricultural best management practices such as nutrient management, animal waste storage, out-of-area litter transfer, riparian buffers, cover crops and limiting livestock access to streams. WVCA also will seek out 319 grant funds to target priority watersheds for agricultural BMPs.



# Chesapeake Bay Program

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

	Federal	State *	Total
Eastern Panhandle	\$146,525	\$146,525	\$292,050
Potomac Valley	\$221,000	\$221,000	\$442,000
Cover Crop	\$120,000	\$60,000	\$180,000
Potts Creek	\$9,865.00	\$9,865.00	\$19,730.00
<b>Total</b>	<b>\$497,390</b>	<b>\$437,390</b>	<b>\$753,780</b>

*\*State match includes in-kind contributions as well as salaries and other state expenses.*



## Nonpoint Source Program Key Figures

Nonpoint Source Definition: Pollution that results from land runoff due to rain or snowmelt, and may include pollutants like fertilizers, insecticides and herbicides.

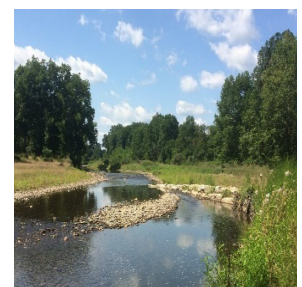
**9,898**  
tons of soil saved under erosion  
control plans

**\$715,469**  
spent on watershed protection  
(Total of federal, state and in kind dollars)



WVCA monitored 46 stations on nine streams in the state in FY 2018.

In addition, numerous stream monitoring workshops were held for the public.





# Soil Tunnel Trailer

A centerpiece of the WVCA's outreach and education efforts, the West Virginia Soil Tunnel Trailer is a mobile learning laboratory for children to learn about the many benefits of healthy soil.

The trailer traveled from the WV State Fair to Barboursville to the Potomac State STEM Festival in Keyser, and many points in between. Combined ...

... the Soil Tunnel Trailer reached:

**23,625**  
people in FY 2018





# Envirothon 2018 Highlights

106

Students participated

\$15,000

In college scholarships granted



2,750+

Students participated since 1997

\$200,000

In college scholarships granted since 1997



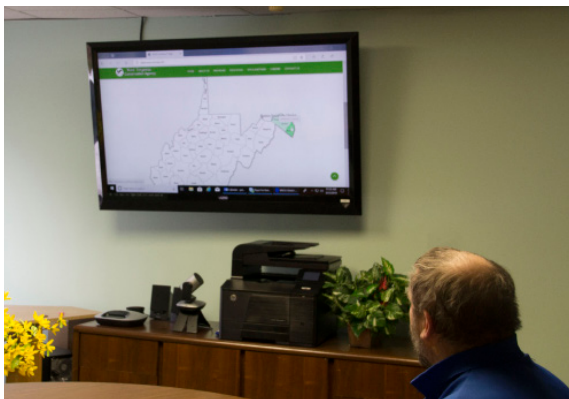


# WVCA website got a fresh new look in 2018

With an eye on getting information about what the West Virginia Conservation Agency is and does to the public quickly and easily, and in an eye-catching way, WVCA IT Specialist Jay Crump took the lead on a major overhaul of the agency's website in 2018.

"This was a complete rework of the website," Crump said. The site is [www.wvca.us](http://www.wvca.us).

WVCA Executive Director Brian Farkas had asked for a fresh design and wanted "an easy format to get information to people about who we are and what we do," Crump said.



From the get-go, a rolling video in the background of the homepage gives the viewer an idea of several responsibilities of the Agency: dam maintenance, watershed protection, Chesapeake Bay protection, pollution and agricultural enhancement.

"We want people to know what we are and why we do what we do -- quickly," Crump said.

The homepage also provides easy access to information about education programs, WVCA's partners, contact information and main programs like Agricultural Enhancement, Emergency Watershed Protection,



the OM&R Program, the Non-Point Source Program and the Chesapeake Bay Program.

There's also simple access to information about conservation districts and district supervisors, news and events, contracting and bidding and the State Conservation Committee.

In developing the new WVCA website, Crump viewed state agency websites from other states, as well as corporate websites. A government agency's site in Alabama helped him develop the idea for the interactive map of West Virginia, which is found on the homepage and allows a viewer to find a conservation district by county.

"So I went looking for what worked and what didn't and ways to improve (upon) what I was finding," he said.

There were technical issues to iron out, such as the background video on the homepage initially not working well on older computers or those with slower Internet bandwidth, but those were fixed and the site functions well across all kinds of computers and Internet speeds, Crump said.





# Scenes from the 2018 Conservation Farm Tours



**Clockwise from Top:**  
Fog begins to lift on the D. Frank Masters Farm in Greenbrier County; Honeybees at Sugar Bottom Farm in Clay County; Rick Martz drives his tractor on the Berkeley County farm he oversees, Back 2 Back Farms; Luke Hunter talks about his farming operation in Jackson County.



## More Scenes from 2018

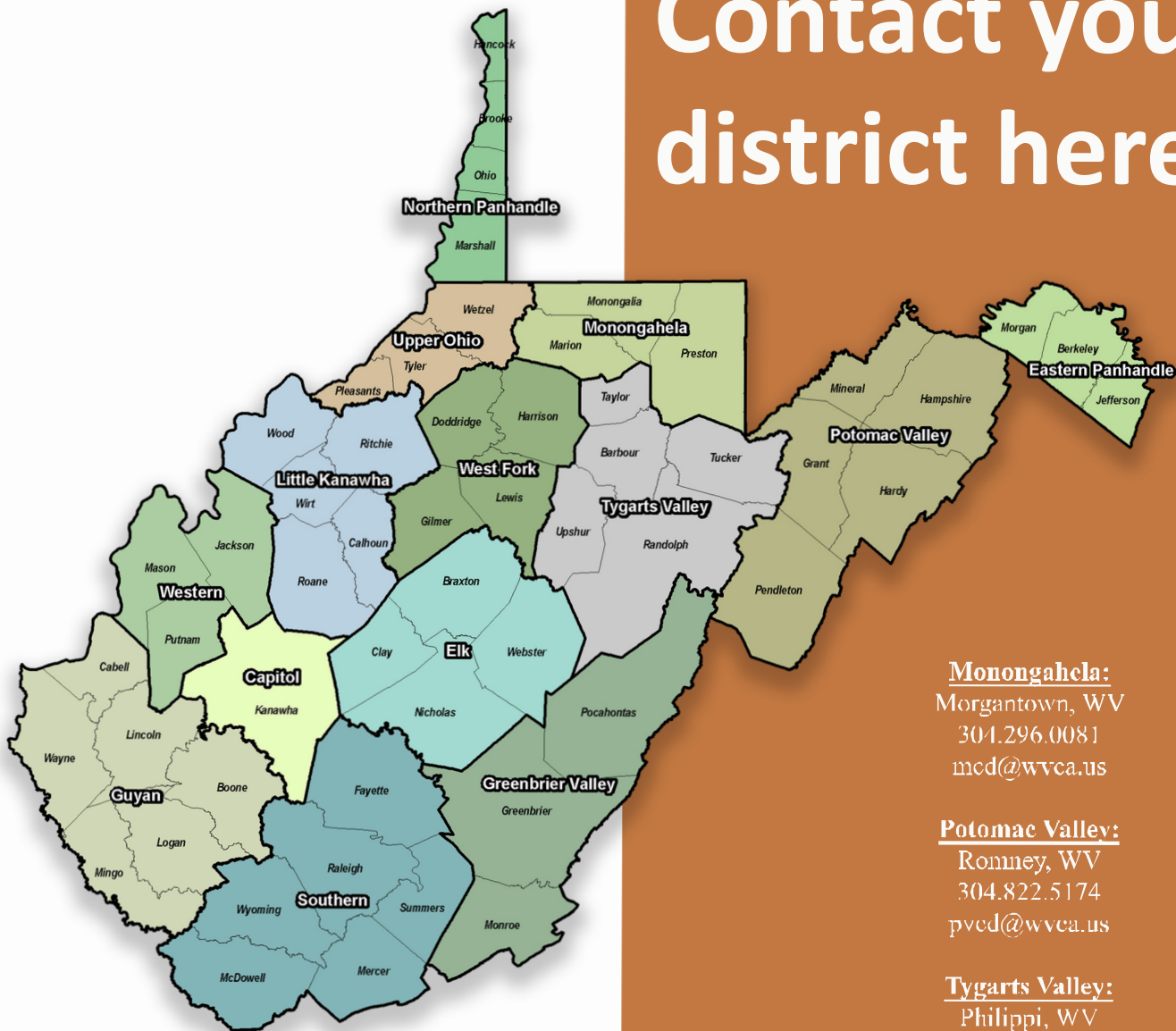


### **Clockwise from Top Left:**

Construction on Upper Deckers Site No. 1 dam in Preston County; WVCA's Judith Lyons presents on streambank restoration during the 2018 WV Urban Ag Conference; Brooke Whited of Ravenswood FFA competes in the Grassland Evaluation Contest; A bumblebee hovers over pink spirea.



# Questions? Contact your district here



## Eastern Panhandle:

Martinsburg, WV  
304.263.4376  
epcd@wvca.us

## Greenbrier Valley:

Lewisburg, WV  
304.645.6173  
gvcd@wvca.us

## Little Kanawha:

Parkersburg, WV  
304.422.9088  
lkcd@wvca.us

## Northern Panhandle:

McMechen, WV  
304.238.1231  
npcd@wvca.us

## Southern:

Beckley, WV  
304.253.0261  
sed@wvca.us

## Monongahela:

Morgantown, WV  
304.296.0081  
med@wvca.us

## Potomac Valley:

Romney, WV  
304.822.5174  
pvcd@wvca.us

## Tygarts Valley:

Philippi, WV  
304.457.3026  
tvcd@wvca.us

## Capitol:

Cross Lanes, WV  
304.759.0736  
ced@wvca.us

## Upper Ohio:

Middlebourne, WV  
304.758.2512  
uood@wvca.us

## Elk:

Sutton, WV  
304.765.2535  
eed@wvca.us

## Western:

Point Pleasant, WV  
304.675.3054  
wed@wvca.us

## Guyan:

Huntington, WV  
304.528.5718  
ged@wvca.us

## West Fork:

Mt. Clare, WV  
304.627.2160  
wfcd@wvca.us

# Visit Us Online:

[www.wvca.us](http://www.wvca.us)



# State Conservation Committee

## Ex-Officio Members



**Chairman:**  
**Kent Leonhardt, Commissioner**  
WV Department of Agriculture  
304.558.3550



**Dr. Ken Blemings, Interim Dean**  
WVU Davis College of Agriculture,  
Natural Resources & Design  
304.293.2395 | Ken.Blemings@mail.wvu.edu



**Austin Caperton, Cabinet Secretary**  
WV Department of  
Environmental Protection  
304.926.0440 | austin.caperton@wv.gov



**Bill Stewart, President**  
WV Association of Conservation Districts  
304.272.6422  
dstewart7552@yahoo.com



**Steve Bonanno, Director**  
WVU Cooperative Extension Service  
304.293.5691  
scbonanno@mail.wvu.edu



**Barry Cook, State Forester**  
WV Division of Forestry  
304.558.2788  
Barry.L.Cook@wv.gov

## Appointed Members



**Angie Rosser**  
304.637.7201  
arosser@wvrivers.org



**Dr. Eli McCoy**  
304.346.7304  
dukedog44@outlook.com



**Timothy VanReenen**  
304.653.4897  
twvanreenen@frontiernet.net



**Rocky Adkins**  
304.792.8626  
radkins@lccwv.us

## Advisory Members



**Louis Aspey**  
State Conservationist, NRCS  
304.284.7545  
Louis.Aspey@wv.usda.gov



**Roger D. Dahmer**  
State Executive Director  
USDA - Farm Service Agency  
304.284.4801



1900 Kanawha Blvd. E.  
Charleston, WV 25302-0193  
304.558.2204