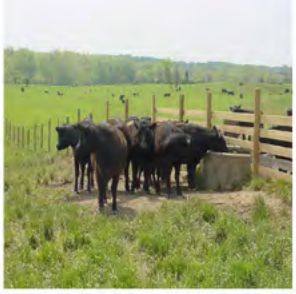

West Virginia Conservation Agency

2012 Annual Report

For the year ended June 30, 2012

West Virginia Conservation Agency

Mission Statement
To preserve the natural resources of
West Virginia by working with partners
to promote soil and water conservation.

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Chairperson
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Contents

Introduction

Through the guidance of the State Conservation Committee, the West Virginia Conservation Agency 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 Districts Supervisors are elected in each county, with the exception of Kanawha County which has five and Berkeley County which has three.

The West Virginia State Conservation Committee (SCC) is the WVCA's board of directors. The SCC consists of 10 members (four serving Ex Officio) and includes the Director of the West Virginia University (WVU) Cooperative Extension Service, the Dean of the WVU Davis College of Agriculture, Natural Resources and Design, the Secretary of the West Virginia Department of Environmental Protection, the President of the West Virginia Association of Conservation Districts, the Director of the West Virginia Division of Forestry and the Commissioner of the West Virginia Department of Agriculture, who serves as the committee's chairman. In addition, the Governor appoints four representative citizens to the committee. The State Conservationist for the United States Department of Agriculture Natural Resources Conservation Service serves as an advisory member.

Outreach & Education

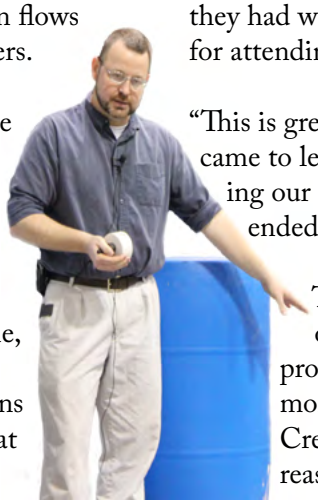
"This is great! We came to learn more about building our own [rain barrel] and we ended up winning one."

Vickie Stroeher, Huntington Resident

In 2012, the West Virginia Conservation Agency (WVCA) and the state's 14 conservation districts provided a variety of conservation-themed programs to 4,940 West Virginia teachers, students and citizens. The programs included rain barrel and agriculture workshops, field days, pasture walks, outdoor classrooms and seedling giveaways.

An excellent example of this was the WSAZ Home and Garden Show in March where WVCA Watershed Resource Center (WRC) staff educated industry professionals and citizens about stormwater runoff which is a major issue in the city of Huntington. Mark Buchanan, a conservation specialist with the WVCA, conducted a Rain Barrel Workshop, in which he discussed storm water runoff, the benefits of using a rain barrel and instructed participants on how to make their own.

A rain barrel is a large drum that collects rain water to limit stormwater runoff. Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, parking lots and streets prevent stormwater runoff from naturally soaking into the ground.
As stormwater travels over these surfaces it picks up chemicals, debris and other pollutants that then flows into lakes, streams or rivers.



"A lot of issues plague the streams in the area and they are all tied in with nonpoint source pollution," said Buchanan.

"On an average size home, an inch of rainfall can produce over 1,000 gallons of water and if you look at the number of homes in a highly populated area, that's a lot of excess runoff that ends up in storm drains."

Huntington residents Vickie Stroeher and her husband came to the Home and Garden Show looking for help with a water-related problem at their home.

"Our house is on a hill and it sits down a little bit and there is water constantly running down the hill eroding the soil." said Stroeher. "So we are looking for ways to stop the soil erosion."

The Stroehers thought a rain barrel would help correct their issue with the soil erosion. The only problem was they weren't sure how to make one, or how to use it properly. The couple was thrilled when they learned they had won a free rain barrel just for attending the workshop.

"This is great!," Stroeher said. "We came to learn more about building our own [rain barrel] and we ended up winning one."

The Stroehers are aware of the storm water runoff problem in Huntington, and more specifically Fourpole Creek. This was another reason they wanted to install a rain barrel.

"We're also interested in stormwater runoff because it is a real health issue in Huntington," said Stroeher.

However, unlike the Stroehers, most citizens are not aware of the threat that storm water runoff can pose to our streams and rivers. That is why education of these issues is paramount for the WVCA.

FY12 Outreach & Education Highlights

- Provided technical assistance to **210** landowners, businesses and organizations.

- Organized **9** agriculture field days with a total of **422** people in attendance.

- Provided **60** educational programs to **4,940** students, citizens and professionals.

- Held **11** conservation themed workshops with a total of **322** people in attendance.

Water Quality Implementation

"My farm is as productive as it ever was, if not more, and we are helping the environment."

Jeff Cook, Greenbrier County Farmer

The Cook Farm, located in the Sweet Springs Valley in Monroe County, is owned by Jeff Cook and his brother John. They run a stocker operation with approximately 300 head of cattle on 289 acres. It has become a shining example of agriculture conservation in West Virginia.

However, there was a time when the stream banks were severely eroded, access roads were overused and full of ruts, and the water in Kitchen Creek was brown.

In 2008, Dennis Burns, a conservation specialist with the West Virginia Conservation Agency (WVCA), visited Cook Farm to gauge the owners interest in Greenbrier Valley Conservation Districts (GVCD) cost-share programs.

"I had been on his property before taking soil samples, so I knew that he needed help," said Burns.

Cook had a different view when he was first approached.

"I wanted to run Dennis outta here at first. I told him I would never fence my stream out," said Cook.

Over the next three years, Burns slowly made his case and Cook finally decided to participate.

In the summer of 2011, with the assistance of a Clean Water Act Section 319 Incremental Grant, several best management practices (BMPs) were implemented on Cook's farm. These practices serve a dual purpose. First, they help restore the land and protect the envrionment. Second, they increase the land's profitablility by improving grasslands and animal health.

The grant provided funding for 4,018 feet of stream and pasture exclusion fence, two stream crossings, five alternative watering systems with spring developments and 3,612 feet of pipeline.

These BMP's, coupled with a rotational grazing system, allowed the cattle to evenly graze throughout their pastureland without impacting Kitchen Creek, a trout stream that runs through the property.

"I used to be able to stand here and the water [in Kitchen Creek] would never be clear. Now it's always clear," said Cook.

According to recent water quality checks, there has been a 90 percent load reduction from bacteria produced by livestock. The improvements also helped restore some of the aquatic habitat and riparian area of Kitchen Creek.

In addition to these projects, Cook has built or improved 1,193 feet of pasture access road and spread lime on his pastures using the GVCD Agriculture Enhancement Program (AgEP). The lime is spread to increase forage yield on pastures and the improved access roads help save 84 tons of soil per year from erosion.

Cook feels good knowing he is improving his production, while also addressing envrionmental concerns.

"I'm glad the programs are around, its really helped," said Cook. "It's also good that my kids see that this works. It's good for the next generation. My farm is as productive as it ever was, if not more, and we are helping the environment."

Current Section 319 Incremental Grant Projects

Clean Water Act Section 319 Incremental Grant Projects provide an opportunity for the West Virginia Conservation Agency (WVCA) to address water quality resource concerns with a targeted approach. These funds are used to install specific projects designed to decrease contributions, such as sediment, phosporus and nitrogen that impair the priority watershed in which the projects are installed. These grants also assist the WVCA in implementing its portion of the Chesapeake Bay Program.

Incremental Project	319 Funding	State Match Funding	Local Match Funding
Kitchen Creek, Monroe County 3rd Congressional District	$108,523	$27,132	$45,217
Lost River 1, Hardy County 2nd Congressional District	$215,682	$90,150	$30,050
Lost River 2, Hardy County 2nd Congressional District	$430,488	$150,975	$125,037
Mill Creek, Grant & Pendleton counties 1st & 2nd Congressional Districts	$174,000	$63,000	$71,250
Back Creek, Monroe County 3rd Congressional District	$151,428	$28,858	$48,095
Sleepy Creek, Morgan County 2nd Congressional District	$292,550	$16,406	$115,036
Muddy Creek, Greenbrier County 1st Congressional District	$225,840	$57,660	$108,630

West Virginia Lime Incentive Program

During FY12, the WVCA created a Task Force, made up of WVCA staff and Conservation District Supervisors, to find ways of improving services to West Virginia farmers.

	Lime Applied (tons)	Acres Treated	$ Expended
FY12	15,873	6,781	$404,455

The Task Force recommended the expansion of the pilot Agriculture Enhancement Program (AgEP) from five districts to 14 and combining it with the Lime Incentive Program. The AgEP offers technical and cost-share assistance to West Virginia farmers as an incentive to implement selected best management practices. The cost-share for AgEP is district specific, but ranges from 50-75 percent. By combining these two programs, the LIP funds can now be used for a variety of conservation best management practices.

The LIP began in 2005, and provides cooperators with a 50 percent cost-share reimbursement.
Since the inception of the progam, it has become one of the most popular best management practices the WVCA and districts offer.

Chesapeake Bay Program

In the past year, West Virginia has moved into the implementation phase with the Chesapeake Bay Program. West Virginia submitted its Watershed Implementation Plan (WIP) to the US Environmental Protection Agency (EPA) with a defined set of goals to reduce nutrients and sediments from entering local waterways and impacting the Chesapeake Bay.

The West Virginia Conservation Agency (WVCA) is one of three lead state agencies in facilitating the program.

Along with the West Virginia Department of Environmental Protection and the West Virginia Department of Agriculture, the WVCA's Watershed Program Coordinator has been involved in implementing the agricultural plan. By serving as a liaison between local, state and federal stakeholders, the WVCA is able to direct funding and technical assistance to the priority practices identified in the WIP.

WVCA staff continue to lead the Sleepy Creek, Lost River, Mill Creek of the South Branch of the Potomac, Anderson Run, Back Creek and Potts Creek/Sweet Springs Creek non-point source watershed based plans.

The WVCA also maintains the state's Chesapeake Bay website, which can be found at www.wvca.us/bay and also produces quarterly newsletters that provide program updates and information on upcoming activities.

Stream Programs

FY12 Stream Restoration Projects Completed

1st Congressional District	$194,684
2nd Congressional District	$197.580
3rd Congressional District	$60,393
Total	$452,657

FY12 Stream Blockage Removal Completed

1st Congressional District	$135,837
2nd Congressional District	$29,415
3rd Congressional District	$38,875
Total	$204,127

"Just days after they [WVCA staff] finished their work, I was suprised at how many fish began to show up."

Barbara Hunter, Greenbrier County Farmer

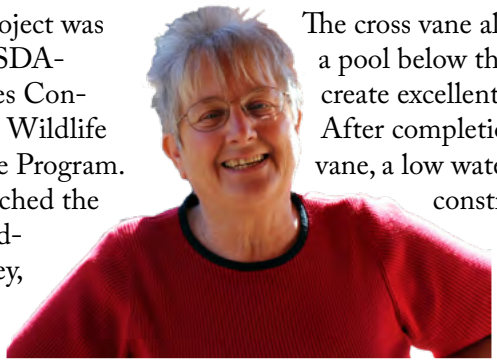
Barbara Hunter lives in Greenbrier County where she owns and operates a 195-acre farm. The farm sits adjacent to Second Creek, a tributary of the Greenbrier River and is known for its excellent trout fishing. Several years ago, when she and her husband purchased the property, they constructed a concrete bridge to access the farm. Over the years, the bridge began to fail and collapse.

"We had to ford the creek to get to the farm because the bridge was so bad," said Hunter. Not only did the bridge pose a safety problem for Hunter but also for the aquatic habitat in the area.

"The bridge wasn't safe, it didn't even go across the creek anymore," said Jennifer Skaggs, assistant watershed manager for agriculture with the West Virginia Conservation Agency (WVCA). "It was depositing sediment and causing problems upstream because the stream flow was disrupted. It was also disrupting the aquatic habitat by preventing the passage of fish."

Hunter did not have the capability to remove the bridge herself so she asked for assistance from the WVCA and the Greenbrier Valley Conservation District (GVCD). The project was funded by the USDA-Nautral Resources Conservation Service Wildlife Habitat Incentive Program. The WVCA matched the funding by providing staff for survey, design and the construction. WVCA Stream Protection and Restoration Program staff developed a comprehensive plan to combat the problems.

The first step was to remove the bridge. With the assistance of the Southern Conservation District Work Crew and other contractors, 100 cubic yards of concrete was removed and taken to an area out of the floodplain. The second step involved the construction of a rock cross vane. The purpose of the cross vane is to decrease near-bank stress, velocity and stream power, while diverting the water's flow to the center of the channel. This increases the amount of sediment that is transported.



The cross vane also scours out a pool below the structure to create excellent fish habitat. After completion of the cross vane, a low water crossing was constructed upstream of the structure. This was built to allow Hunter access to her farm and to improve fish passage. The total cost of the project was $52,125 and the results were almost immediate.

Within days of completing the project, Hunter says she noticed improvement. "Just days after they [WVCA staff] finished their work I was surprised at how many fish began to show up," said Hunter.

Stream Restoration Projects

Completed in FY12

Second Creek	Greenbrier Valley CD	Greenbrier County	$52,124
Kitchen Creek	Greenbrier Valley CD	Greenbrier County	$8,269
Rehab of Farmington Box Culvert	Monongahela CD	Marion County	$69,000
Rymer Stream Restoration	Monongahela CD	Marion County	$22,000
Short Creek Stream Restoration	Northern Panhandle CD	Ohio County	$56,604
Lost River Bank Stabilization A	Potomac Valley CD	Hardy County	$92,670
Lost River Bank Stabilization B	Potomac Valley CD	Hardy County	$104,911
Lewis County Park Stream Restoration	West Fork CD	Harrison County	$47,080
		TOTAL	$452,657

The Lewis County Park Stream Bank Restoration Project cost $47,080, and benefits many local residents and organizations.

This natural stream restoration project, located on the Lost River in Hardy County, cost $104,911.

Emergency Watershed Protection

"The work that the WVCA and district have done has saved the taxpayers millions of dollars."

Roger Bryant, Logan County OES Director

In late February, severe storms and tornadoes ripped through the state destroying houses and impairing streams in Lincoln, Marion and Wayne counties.

Two weeks later, another round of storms caused flash flooding in Logan County, part of the Guyan Conservation District. Some residents reported up to 18 inches of water in their houses.

After disasters occur, local and state organizations play a critical role in restoring the affected communities. Among these organizations are the West Virginia Conservation Agency (WVCA) Emergency Watershed Protection (EWP) staff and the local conservation district.

The WVCA EWP program is only used during a state or federal declared emergency in response to a sudden disaster, and not for on-going, routine maintenance issues. Logan, Lincoln, Marion and Wayne counties were designated federal disaster areas by President Obama. The designation makes federal funding available to affected individuals in those counties.

The WVCA EWP staff was charged with finding and removing blockages from streams. In FY12, the WVCA completed work on nine EWP contracts totaling $262,368. One of the most difficult and vital aspects of the recovery effort is the coordination between local, state and federal agencies.

"The cooperation between us, the local OES (Office of Emergency Services), county government, WVDOH (West Virginia Department of Highways) and the National Guard is crucial in the recovery effort," said Gene Saurborn, WVCA's assistant division director of streams. Coordination between these agencies results in a smoother recovery effort that allows residents to focus on restoring their property. After the storm event, the first priority for the WVCA EWP staff is to restore proper stream flow.

"It is extremely important to get the people back to their houses," said Saurborn. "That is why removing these blockages and opening the stream channels are our first priority."

The WVCA EWP staff finds stream blockages several different ways. They may receive a tip from residents, another agency or by doing their own reconnaissance. Once the blockages are identified, they are prioritized and removed by a contractor or a conservation district work crew. The next step is to lessen the effects of future flooding.

Roger Bryant, Logan County OES Director, has overseen numerous recovery efforts and has seen the work performed by the WVCA and Guyan Conservation District.

"The work that the WVCA and district have done has saved the taxpayers millions of dollars," said Bryant. "Specifically, the Island Creek and Garrett's Fork projects have helped. These areas were usually always flooded after a storm event, now they aren't. I think it speaks for itself."

The Island Creek and Garrett's Fork Projects are a cooperative effort between the U.S. Army Corps of Engineers, Guyan Conservation Distric, Logan County Commission and the WVCA. While these are not EWP projects, their purpose is to mitigate future flooding.

The Island Creek Project in Logan consists of widening the Island Creek channel to an 80-foot bottom width, for a distance of approximately 3,600 feet upstream of its confluence with the Guyandotte River. In addition, post and panel retaining walls are being installed to stabilize the creek bank behind commercial structures. The project is ongoing and is expected to be completed by 2014; however, residents and local officials are already seeing the benefits of this floodplain recovery work.

Watershed Dams

"The drought situation was so bad in the area that local officials had to do something for this end of Randolph County."

Louise McAtee, General Manager, Huttonsville PSD

The West Virginia Conservation Agency (WVCA) Watershed Division is responsible for the Operation, Maintenance and Repair (OM&R) of 170 watershed dams and 22 channels throughout West Virginia. The newest dam, Elkwater Fork, was dedicated in August 2012. It was built to give residents in the Upper Tygarts Valley Watershed a reliable source of drinking water.

Following a severe drought in 1993, local officials in the Upper Tygarts Valley Watershed quickly realized the need for a dependable water supply for the residents of Elkins, Beverly, Huttonsville and Mill Creek. Louise McAtee, General Manager for the Huttonsville Public Service District (PSD), said that droughts were a recurring event in the area and something needed to be done.

"The drought situation was so bad in the area that local officials had to do something for this end of Randolph County," said McAtee.

In 1995, a study by the USDA-Natural Resources Conservation Service (NRCS) found that an estimated 27,803 residents in the area would directly or indirectly benefit from municipal water. This laid the groundwork for the Elkwater Fork Dam.

Construction began in May 2006 and was completed in June 2009. The project is one of the largest contracts ever administered by NRCS or the WVCA. The Elkwater Fork Dam was built by Heeter Construction from Spencer. A majority of the crew was from the Randolph County area and 80 percent of the materials used to build the dam came from West Virginia.

Federal, State and local partners worked together for funding. NRCS provided $25.9 million or 75 percent of funding through the NRCS PL 566 program. The WVCA and the Tygarts Valley Conservation District provided $8.6 million, or 25 percent of funding and acquired the land needed for the project.

Local officials are thrilled with the new water supply dam. In 2013, the Huttonsville PSD will begin construction on a new water treatment facility.

"The Huttonsville PSD will be constructing a 700,000-gallon water treatment facility near the dam that will provide potable water for the southern end of Randolph County," said McAtee.

The Monitoring Gage at the Elkwater Dam is also unique. The gage allows for the continuous monitoring of water levels. This provides WVCA OM&R crews the ability to monitor water levels remotely, which in turn saves man hours. The gage also allows for a historical database on rain and drought events.

"This gage provides real-time data and allows us to monitor the available water supply and storm events remotely," said Mike Worley, WVCA's assistant division director of OM&R. "By providing real time data, it allows for a quicker response to whatever the problem may be, and it assists us in implementing the Emergency Action Plan."

As a condition of permitting under the Clean Water Act, on-site mitigation activities were completed before the structure could be used to supply water. The work included creation of wetlands, a boat launch area, handicap accessible fishing area and an angler walking trail. A safety boom was also installed to improve boater safety since the water will flow over the dam and not through a pipe spillway.

Elkwater Fork Dam

Location:
Randolph County, 2nd Congressional District

Purpose:
Water Supply, Flood Control, Recreation

Cost:
$34.5 million

Conservation District:
Tygarts Valley

Drainage Area Above Dam:
8.4 square miles, 5389 acres

Size of Dam:
123 feet high, 700 feet wide

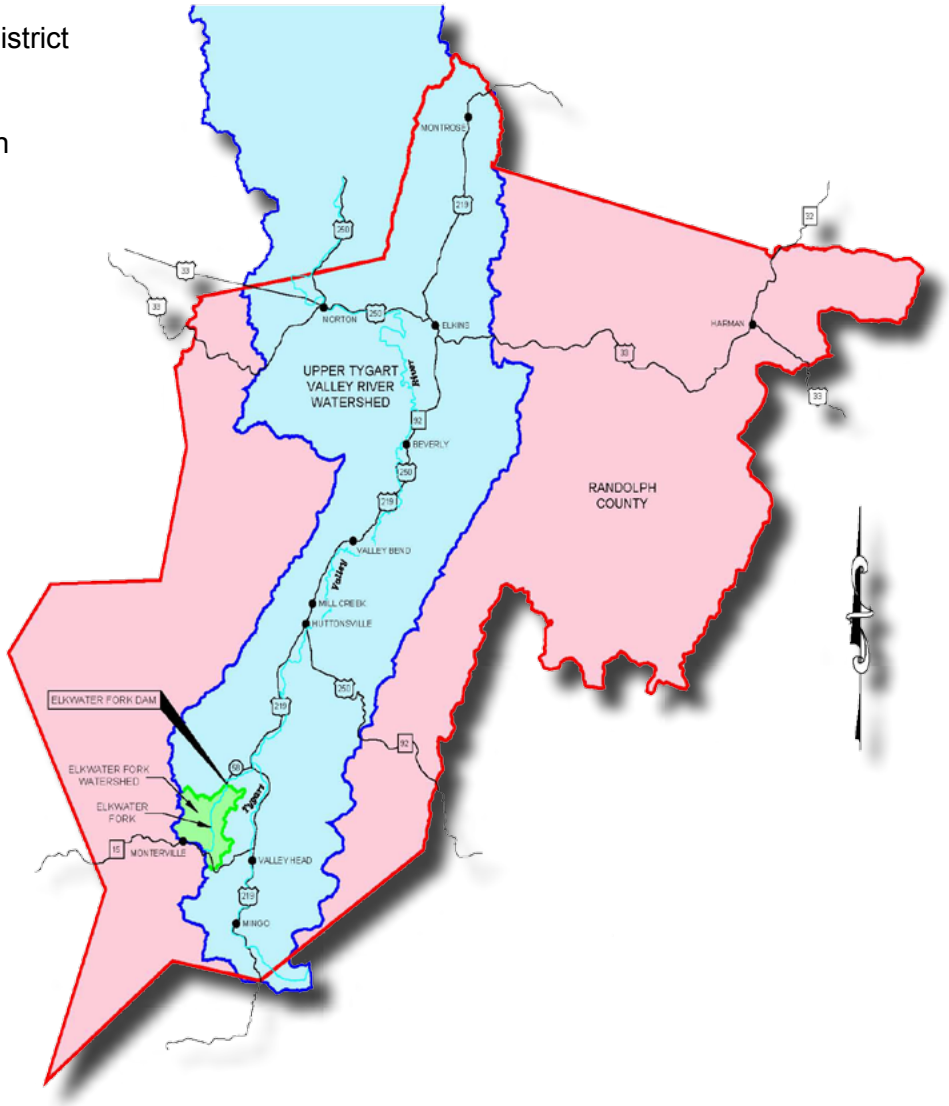
Type of Dam:
Roller Compacted Concrete

Reservoir Size:
54 acres

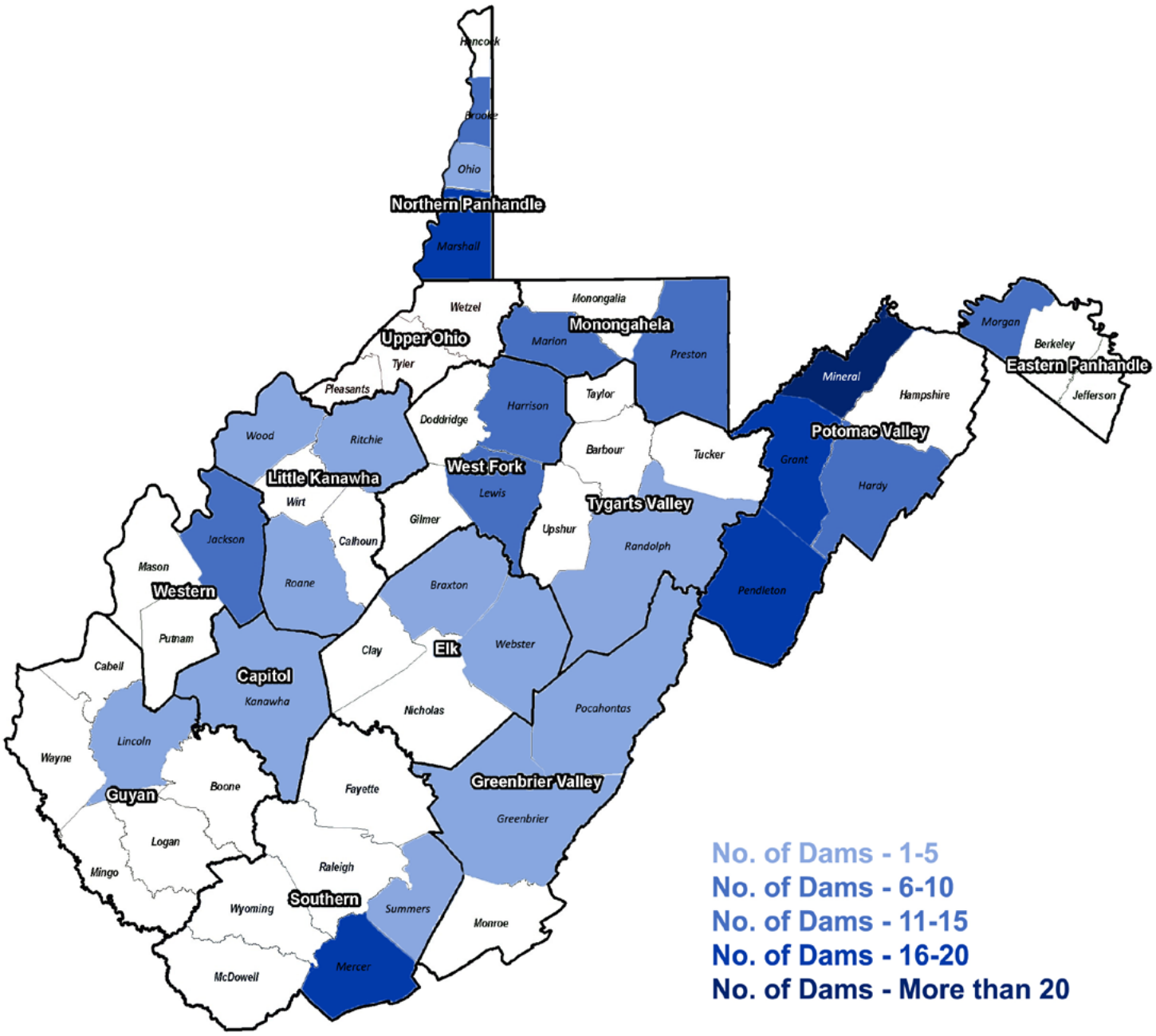
Dam Construction Contractor:
Heeter Construction, Inc., Spencer, WV

Dedicated:
August 2012

Service Life:
100 years



Watershed Dams by County



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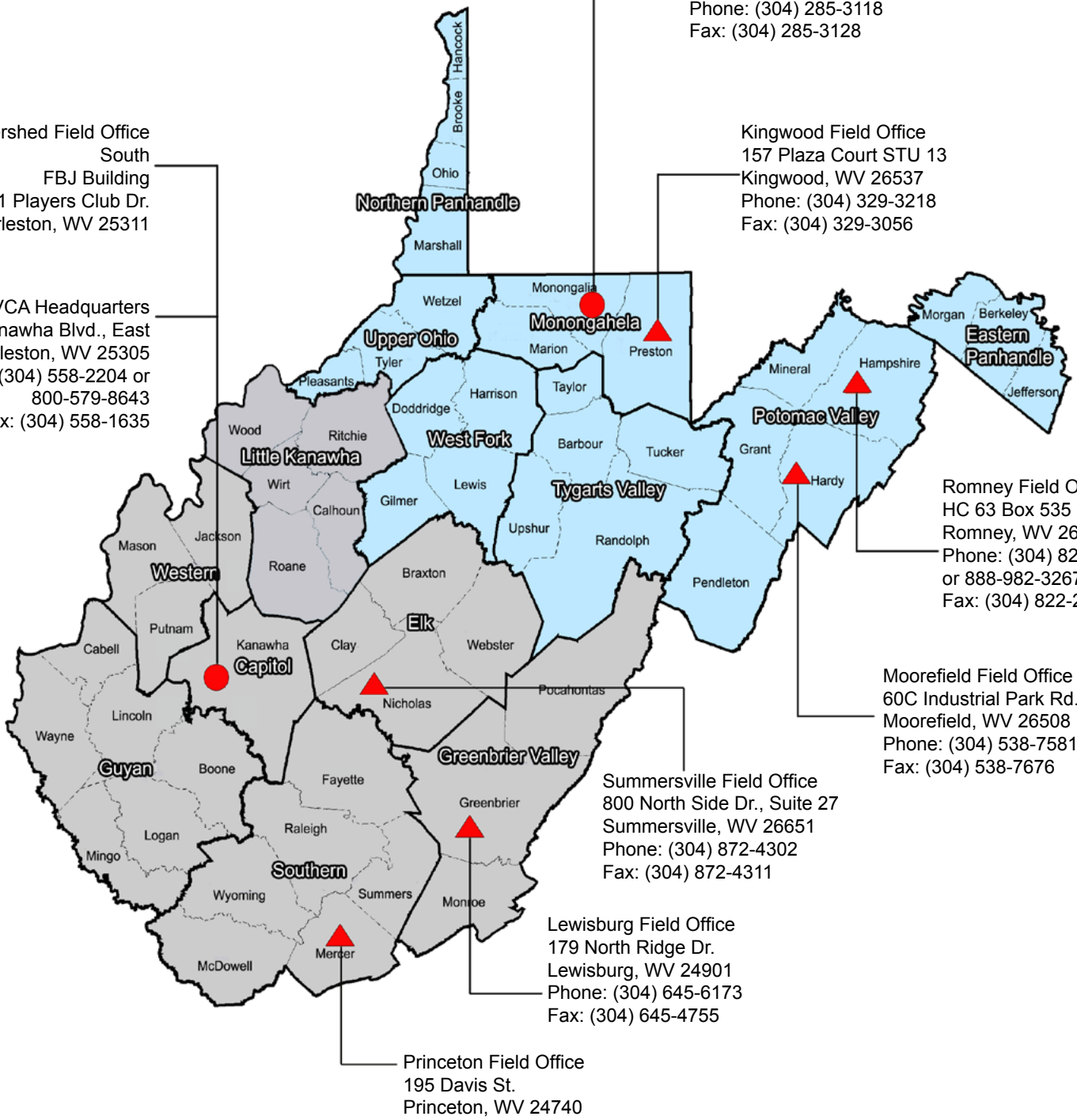

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