

# The Appalachian VOICE

August/September 2016

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## Growing Up Appalachian

- ▶ Young people share their visions for the region's future
- ▶ Helping the next generation overcome barriers

**Plus:** Forging New Trails | A Coal Ash Mess | Composting with Worms | Voter Turnout

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### A note from the executive director

Every time election season rolls around, I reflect anew on the promise of our democracy, built and sustained on the sacrifices and bold vision of so many who went before us. On Election Day, though we enter the voting booth as individuals, we are in fact acting collectively with every other American voter to shape our country's future.

But our democratic duty need not, and should not, be put on the shelf the rest of the year. We have daily opportunities to participate; whether it's speaking before our town council, meeting with our congressional representatives, writing a letter-to-the-editor, attending a rally or signing an online petition, each action represents a voice or an idea that would otherwise not be heard.

Indeed, in the face of the moneyed special interests that have hugely disproportionate influence over so many aspects of our lives, joining our voices together into a loud and clear call for positive change is essential.

And it works. Appalachia's proud history of labor organizing exemplifies this type of citizen engagement — ordinary people banding together to improve the lives of their families and neighbors.

More recently, North Carolinians are uniting to protect their communities from toxic coal ash. Thanks to ongoing citizen pressure following the 2014 Dan River coal ash spill, Duke Energy and state officials have been exposed for their misdeeds, and there is a broad movement to hold them accountable.

In North Carolina's High Country, the Blue Ridge Electric Membership Corp. heard their members calling for better financing for home energy efficiency improvements. And in the coal-bearing regions of Appalachia, citizens and local elected officials are urging substantial federal investment to diversify and boost the economy.

Every day, Appalachian Voices takes action to support this citizen engagement. It's what democracy is all about.

For the future,



Tom Cormons, Executive Director



### From one Editor to another



I picked up my first copy of The Appalachian Voice nearly 20 years ago, when the publication was brand new and I a young journalist at a Boone, N.C., community newspaper. A loyal reader throughout the years, I lucked into the managing editor position for The Voice in 2008. And for the past six years, I have considered it a true privilege to serve as Editor, sharing with our readers my undying ardor for and desire to protect the unique natural beauty of my Appalachian home.

Today it is my honor to pass on the editorship reins to Molly Moore, who has served as our managing editor (and my right hand!) for the past four years and who has put as much — if not more — sweat, tears and devotion into the paper as I have. Molly's unflinching passion for the outdoors and environmental justice, combined with her journalistic professionalism and keen attention to detail, will usher The Voice into the next twenty years of working to promote, defend and safeguard the region we all love.

Thank you. I've enjoyed every minute of it.

Jamie G.  
Jamie Goodman, Editor 2010-2016

## GET INVOLVED environmental & cultural events See more at appvoices.org/calendar

### Hands Across Our Land

Aug. 18: Citizens across the region will join hands to raise awareness of the impact of coal ash contamination and natural gas pipelines. Free. To join the WV Highlands Conservancy's event in Pliny, W.Va., from 7-8:30 p.m., visit tinyurl.com/PlinyHands. For info regarding other locations and to plan your own event, visit handsacrossourland.org or call 336-982-2691.

### Mountain Music and Medicinals

Sept. 1, Clintwood; Sept. 8, Haysi; Sept. 10, Dunganon: Workshops in herbal healing combined with live folk, bluegrass and old-time music across Southwest Virginia. Free. More events may be added! For venues and show times, visit appvoices.org/mountainmusicmedicinals or call 276-679-1691.

### Fall Naturalist's Rally

Sept. 9-11: Join Friends of Roan Mountain for lectures on environmental topics and nature hikes throughout the park. Cost varies. Roan

Mountain State Park, Tenn. Visit tinyurl.com/NaturalistRally or call 423-543-7576.

### Butterfly and Pollinator Weekend

Sept. 9-11: Learn about bees, butterflies and other pollinators from experts and interact with different insects. \$30. Jenny Wiley State Resort Park, Prestonburg, Ky. Visit tinyurl.com/KyButterfly or call 606-889-1790.

### Elk Knob Community Headwaters Day

Sept. 10, 11 a.m.-3 p.m.: Enjoy a day of outdoor activities, music, a potluck and culture at Elk Knob State Park. Free. Todd, N.C. Visit tinyurl.com/ElkKnobHeadwaters or call 828-297-7261.

### Putting Gardens to Bed for Healthier Springs

Sept. 12, 6-8 p.m.: Learn how to prepare your garden in the fall for healthy spring beds. \$3. Appalachia - Science in the Public Interest, Mount Vernon, Ky. Visit tinyurl.com/HealthySprings or call 606-256-0077.

### From Your Backyard to the Blue Ridge

Sept. 17, 8:30 a.m.-1 p.m.: Learn about gardening strategies from local experts. Cost varies. The Market at Grelen, Somerset, Va. Visit pecva.org/events/from-your-backyard-to-the-blue-ridge or call 540-727-3435.

### Cedar Bluff Heritage Festival

Sept. 17: Enjoy food, music, corn hole and other games while celebrating the history of the region. Free. Cedar Bluff Fire Station, Cedar Bluff, Va. Visit myswwa.org/event/cedar-bluff-heritage-festival or call 276-964-4889.

### Great Outdoors Weekend and National Public Lands Day

Sept. 24, 10 a.m.-3 p.m.: Join Friends of Big Bone to celebrate the birthplace of paleontology with hikes, lectures and more. Big Bone Lick State Historic Site, Union, Ky. Visit tinyurl.com/FriendsOfBigBone or call 859-689-5631.

### Tennessee Fall Homecoming

Oct. 7-9: Celebrate bluegrass and folk music with a weekend that benefits the Museum of Appalachia's mission to preserve Appalachian heritage. Cost varies. Museum of Appalachia, Clinton, Tenn. Visit tinyurl.com/TennHomecoming or call 865-494-7680.

### Camping in the Old Style

Oct. 8, 9 a.m.-5 p.m.: Learn about camping in the early 20th century with live demonstrations and reenactments. \$5. Cradle of Forestry, Pisgah Forest, N.C. Visit tinyurl.com/OldStyleCamping or call 828-877-3130.

### Fall Children's Festival

Oct. 9, 1-4 p.m.: Come enjoy a family-friendly day of crafts, snacks and special guests. Free, registration required. West Virginia Botanic Garden, Morgantown, W.Va. Visit tinyurl.com/BotanicalChildren or call 304-322-2093.

# Across Appalachia

## Rebuilding Continues in Wake of Devastating West Virginia Floods

By Otto Solberg

At least 23 people were killed in West Virginia due to the extreme flooding caused by storms on June 23. The floods affected most of the state and particularly ravaged southern counties.

Up to 10 inches of rain fell within a few hours in some areas, and the mountains funneled the water to the valleys where many communities are built. Some houses, businesses, cars and even roads were swept away, with others submerged in feet of muddy water.

The National Weather Service considered the devastating flood a thousand-year event.

More than 50,000 people were left without power, and gas lines had to be turned off after causing many fires.

Rockslides, mudslides, and flooding destroyed roads and bridges, leaving parts of West Virginia accessible



Volunteers are still needed to assist with flood relief. Photo by David T. Stephenson, davidtstephenson.com

agency response agencies and volunteers with rescues and rebuilding after the flood. Jenny Gannaway, the state chair for Voluntary Organizations Active in Disaster, told West Virginia MetroNews that full recovery will take at least five years. Grants up to \$10,000 are available for small business owners in the affected counties through RISE West Virginia, a new public-private partnership facilitated by the state Chamber of Commerce.

In 2013, The West Virginia State

only by helicopter. Others who were stranded in their attics and on their roofs were rescued by boat.

The Federal Emergency Management Agency and the West Virginia National Guard assisted law enforcement, emer-

Division of Homeland Security and Emergency Management warned that climate change might be responsible for more extreme weather events. A warmer atmosphere holds more water, causing heavier rains.

The state's steep terrain is already prone to hazardous flash flooding, and many people live on slopes or in valleys. "West Virginia is among the places where effects of climate change are being felt by people now," stated an editorial in the Charleston Gazette-Mail, which called on

state legislators to prioritize funding for agencies that provide necessary services before, during and after a disaster.

The further environmental impact of the washouts is enormous.

Parts of the 78-mile Greenbrier River Trail closed due to landslides, which swept away parts of the trail and dumped piles of debris in other areas. Park staff and volunteers are working on the trail, opening sections and updating their Facebook page as they restore it for hikers and bikers.

To donate to flood relief or find other ways to help, visit wvflood.com.

## Bluegrass Legend Ralph Stanley Dies at 89

Ralph Stanley, legendary bluegrass pioneer, died at his home in Sandy Ridge, Va., in June after a battle with skin cancer.

Ralph Stanley began performing music with his brother Carter in 1946 with their band The Clinch Mountain Boys. The band became a centerpiece of the bluegrass movement of the '50s and '60s by performing original hits and covers of traditional songs like "Man of Constant Sorrow."

Over the next five decades, Ralph Stanley played banjo and sang with his unmistakable mountain style. He was awarded an honorary doctorate from Lincoln Memorial University in 1976, joined the Grand Ole Opry in 2000, and won a Grammy Award in 2002. After contributing to the soundtrack for "O, Brother Where Art Thou" in 2000, the power of his music was recognized by a new generation of listeners.

— Savannah Clemmons

## Food Pantries Bank on Wasted Produce

By Otto Solberg

Within the last few years, many food banks across the Southeast have started "Farm to Food Bank" programs to distribute misshapen or blemished produce from local farms to people in need.

"It is produce that might not sell in the retail space, but is still perfectly good," says Abena Foreman-Trice, communications specialist with the Blue Ridge Area Food Bank in Virginia.

Although 48 million people in America live in food-insecure households, 40 percent of food in the United States goes uneaten, according to the Natural Resources Defense Council.

Many statewide and regional pro-

grams are incentivizing farmers to help. Kentucky farmers sell their produce to food banks for nearly full value. In 2015, 302 farmers contributed enough to fill half a plate with fruits and vegetables for 4,104,800 meals, and each farmer received an average of \$1,570.

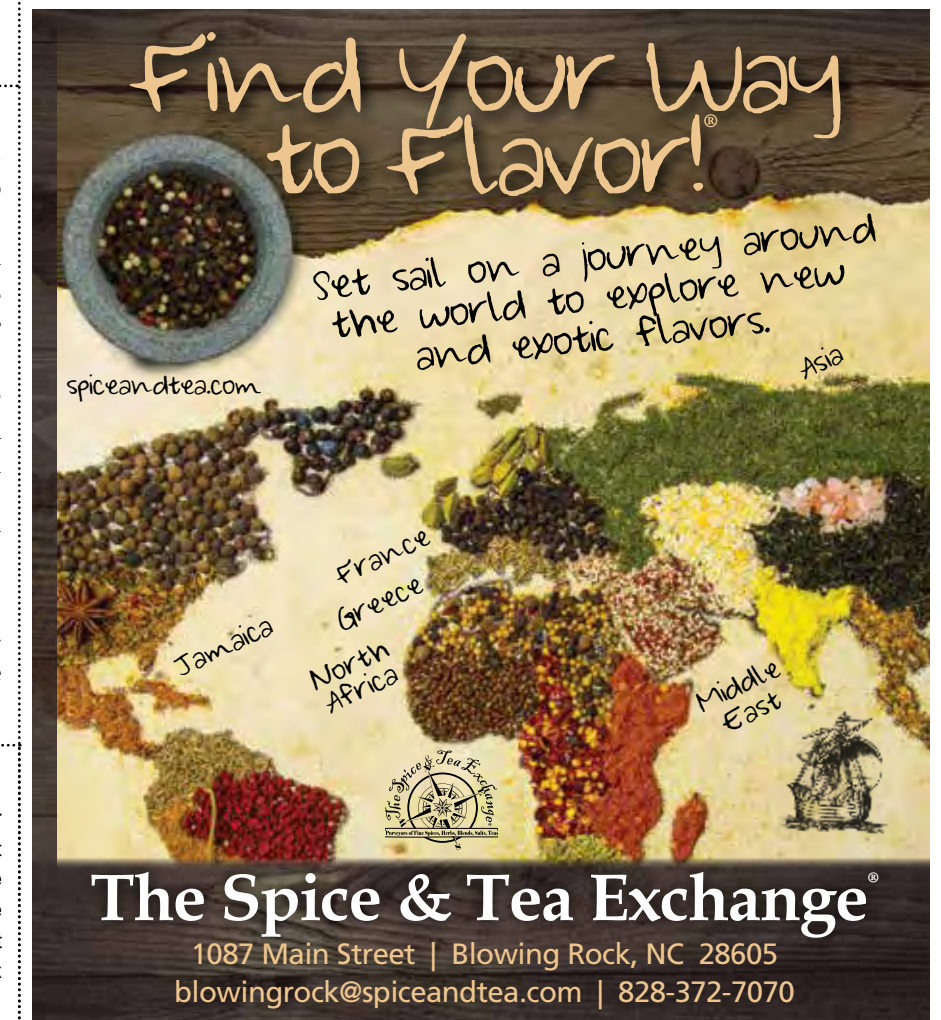
"One farmer said that all of the money they have made from the Farm to Food Bank program is going into a fund for their kids to go to college," says Sarah Vaughn with the Kentucky Association of Food Banks.

In other states like North Carolina, farmers can receive tax breaks for donating produce that might otherwise be wasted.



### About the Cover

Young explorers tackle the Grandfather Mountain Trail for the first time in this image by Eric Heistand. Eric is a resident of Valle Crucis, N.C., and an advocate for sustainable outdoor recreation in the North Carolina High Country. He enjoys capturing outdoor adventure, especially when that adventure includes his own children. View more of his work at ericheistand.com and instagram.com/ericheistand



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Knoxville endangered species mural. Photo by Roger Peet, courtesy of the Center for Biological Diversity

### Murals Showcase Rare Species

A 175-foot long wall in Knoxville, Tenn., was transformed into a mural promoting the protection of endangered native species from habitat destruction. It is the largest mural completed by the Center for Biological Diversity's Endangered Species Mural Project and Oregon-based artist Roger Peet.

The Knoxville project features pink mucket pearly mussels along with other local endangered species such as Cumberlandian combshell, sheepsnose and

rabbitsfoot mussels and fish like the Citico darter and blotchside logperch.

The Center also completed a similar mural in Berea, Ky., featuring the white fringeless orchid, which is threatened by logging, development and climate change. Only growing in forested areas with wet soil, the orchid is already extirpated in North Carolina, but can be found in roughly 60 locations in Kentucky and surrounding states. — *Otto Solberg*

### Proposed Federal Prison in Kentucky Raises Environmental Justice Concerns

Activists and residents are currently fighting a plan to build a new federal prison in Roxana, Ky., on land where mountaintop removal coal mining and gas drilling have taken place. County officials have said that the prison, which will likely receive \$444 million in federal funding, will bring local jobs to an area that has seen economic decline as the coal industry falters.

But local activist group Letcher Governance Project argues that there are better investments than prisons, and that the previous three prisons built in the state did not deliver on the economic promises made prior to construction.

The prison is proposed to be built on

an abandoned mine, potentially exposing incarcerated individuals, prison staff and those living nearby to leftover contamination from mining and gas drilling that resurfaces during construction, Panagioti Tsolkas of the national organization Prison Ecology Project says. The group has also commented that the quality of water delivered to the prison could be affected from past mine activities.

"New prisons have been portrayed as an economic opportunity for the struggling residents of rural Appalachia, but prisoners in the coal fields are also on the front lines of Appalachia's environmental justice struggle," says Tsolkas. — *Hannah Petersen*

### Protections Sought for Rare Alabama Snail

In June 2016, environmental groups filed a petition to list Alabama's oblong rocksnail as threatened or endangered due to its vulnerability to pollution, climate change and invasive species.

The snail was thought to be extinct for over 70 years. However, in 2011, a graduate student rediscovered an isolated population of the nickel-sized mollusks on an unnamed shoal in the mountainous region of the Upper Cahaba River. — *Otto Solberg*

### "Zombie Bee" Disease Found in Virginia

This June, scientists confirmed that the South's first case of a particular bee-killing parasite was discovered near Roanoke, Va., according to the Associated Press.

The "zombie bee" condition, which is caused by parasitic flies laying larvae in live bees, was first discovered in California in 2008.

The phenomenon causes bees to display "zombie-like" behavior, such as flying at night or drifting towards light. Several hours after being infected, bees will die. Scientists are working to determine the significance of the condition's spread and its potential effects on bee populations. — *Savannah Clemmons*

### Disputes Over West Virginia's Water

By *Eliza Laubach*

West Virginia American Water, a privately owned water utility serving much of the state, is facing continued public pressure.

In May, the company proposed a new surcharge on ratepayers' bills that would amount to \$88 million over four years, saying it was necessary to replace infrastructure and guarantee investor profits. Advocates for a Safe Water System, a local grassroots organization, argues that this profit is too high for no-risk investments and is calling for more cost-effective options. Earlier this year, West Virginia's Public Service

Commission approved the company's request for a 15 percent rate increase.

This spring, a hearing was scheduled for November on a long-stagnant state investigation into the utility's response to the 2014 Elk River chemical spill, which left more than 300,000 people in West Virginia without safe drinking water. The state recently declined the advocacy group's petition to include emerging information from a separate court case over the water crisis.

The increases to customer bills, along with water safety and infrastructure concerns, have motivated the advocacy group's call for county commissions to transfer the utility to public ownership.

### Chattanooga Launches Solar-Electric Car-Sharing Program

An electric vehicle car-share program in Chattanooga, Tenn., launched this summer as part of a combined effort between the Chattanooga Area Regional Transportation Authority, Tennessee Valley Authority, Electric Power Board and the California-based company GreenCommuter.

The first phase of the project included building 20 solar-assisted charging stations around the city that can each charge mul-

tiples cars. The program will rely on a fleet of all-electric Nissan Leafs.

"Chattanoogans should be proud of this agreement because we are the first medium-size city in the nation to implement an electric vehicle car-sharing system to reduce emissions and traffic congestion," Brent Matthews, CARTA director of parking, told WVTC. — *Otto Solberg*

### TechHire Program Launched in Appalachian Region

This past June, the Obama Administration announced the launch of South Central Appalachian TechHire, an effort to develop and prepare tech talent in western North Carolina and Southwest Virginia. The Appalachian Regional Commission, the University of Virginia's College at Wise and private sector employers aim to jointly place over 50 individuals into tech jobs over the next year and 400 into tech positions by 2020,

according to the White House blog.

The Obama Administration also announced \$150 million in TechHire grants, of which over \$30 million will serve rural areas. South Charleston, W.Va., for example, will receive \$4 million to help young adults in former coal mining counties train for high-paying technology positions. — *Hannah Petersen*

### N.C. Mapping Project Assesses Pollution from Big Farms

North Carolina is one of the largest pig- and chicken-producing states in the country, and the operations create millions of tons of animal waste each year.

Two advocacy groups, the Environmental Working Group and the Waterkeeper Alliance, developed a series of interactive maps of poultry, swine and cattle operations

across the state, including waste lagoons and waterways that could be affected. The maps are intended to serve as a tool to assess the social and environmental impacts of industrialized animal farms.

View the map at [tinyurl.com/ncfarms-map](http://tinyurl.com/ncfarms-map). — *Otto Solberg*

### National Chemical Safety Rules Updated

After years of negotiations on Capitol Hill, on June 22 President Obama signed the first chemical legislative reform since 1976. The law gives the U.S. Environmental Protection Agency more authority to test and regulate chemicals and keep dangerous items off the market. Although it may take years to ban some chemicals, the law

requires the EPA to develop a risk evaluation process by the end of the year.

The Southeast's waterways are contaminated with traces of pharmaceuticals, a new United States Geological Survey study found. Besides discharge from wastewater treatment plants, aging sewers and leaking septic systems are also at fault. — *Otto Solberg*

## A COUNTRY GOURMET'S DREAM

Gathering around a table with neighbors and friends, eating tasty food harvested from your own gardens, and waiting for the stars to come out—what a great way to spend an evening.



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# Hiking the Highlands Forging New Paths

Communities see opportunity in new trails

By Lorelei Goff

Besides solitude, exercise, adventure and a connection to nature, hiking trails offer opportunities for ecotourism. Like the networks of people who help maintain them and provide logistical support for long-distance hikers, it takes a network of private and public partnerships to create them. Here's a look at a few efforts to bring more trails — and dollars — to rural Appalachian communities.

## C&O Railroad Trail

When Debbi Hale steps onto the remnants of the C&O railroad bed at the base of Pine Mountain in Pound, Va., the first thing she sees is the old tunnel the company blasted through the mountain to Jenkins, Ky., in 1947. She walks up to its yawning mouth where timbers buttress the fault-riddled rock and listens to its curious groans as the fog drifts in and out.

Hale turns away to the east, following the old railroad bed



The former railroad right of way provides a level path for future hikers along the C&O Railroad Trail. Photo by Debbi Hale

through a gash in the mountain. She walks on, passing wetlands, some old growth forest and vestiges of fields, stopping just shy of the North Fork of Pound Lake at the old Wright cemetery, the resting place of infamous Pound resident Devil John Wright.

Wright was alleged to have killed as many as 27 men, including the namesake of the nearby Red Fox Trail.

For the last four years, Hale, a teacher and native of Pound, has worked to make this 3-mile section of the old railroad into a Forest Service trail connecting the 1.15-mile historic Red Fox Trail to

the 110-mile Pine Mountain Trail in Kentucky, which is part of the long-distance, multi-state Great Eastern Trail.

Since most of the treadway is already in place — the railroad company removed the tracks when the right of way reverted back to the Forest Service and private landowners — her biggest challenge was identifying the current landowners. All the parties must sign a land use agreement detailing how and by whom the trail will be maintained. The agreement also relieves landowners of liability for the trail under Virginia state law. So far, all but two landowners have signed.

She began the project as a way to stimulate the faltering local economy, and she hopes the town will become an officially designated Trail Town. The Cloudsplitter 100, a 100-mile trail race on Pine Mountain that incorporates part of the proposed trail, brought more than 100 visitors to the town of roughly 1,000

last year. The number could more than double this year since the event will be a qualifier for a prestigious European trail race. Meanwhile, Hale continues to advocate for the trail and for reopening the tunnel that connects it with Jenkins, Ky.

### Red Fox Trail

**What:** A historic trail open to hiking, biking and horses that would connect to the C&O Railroad Trail

**Where:** Near Pound, Va. From Pound, take Hwy. 23 North for 3.6 miles, turn left on SR 667 for .6 miles, park in graveled area on the right side of SR 667. Cross road on foot, pass through Forest Service gate, and follow road bed to the left for .17 miles before trailhead.

**Distance:** 1.15 miles

**Difficulty:** Moderate

**Contact:** Clinch Ranger District at 276-679-8370

**Visit:** [tinyurl.com/redfoxtrail](http://tinyurl.com/redfoxtrail)

## The Great Eastern Trail

"It's wild," says Joanna Swanson exuberantly, referring to her trek on the Great Eastern Trail. "It felt like the age of discovery and exploration wasn't over yet."

Swanson, the West Virginia representative for the Great Eastern Trail board, made the 1,600 mile hike from Alabama to New York with Bart Houke in 2013. It was the first "thru-hike" of the trail and required using roadways in many sections where the footpath wasn't yet built. Since then, about 20 more miles of the trail have been routed off roads. Swanson says that's fast progress for a project like this.

Although the multi-state trail is 75 to 80 percent done, some sections remain incomplete. In parts of southern West Virginia progress is at a standstill until land use agreements are signed with the companies who own the properties the trail will pass through.

Most of the treadway is already in place along old logging roads, and local communities are excited about the potential for economic development.

Tim McGraw, a 67-year-old retiree and native of Wyoming County, W.Va., worked in the mines for over a decade before becoming a school teacher. He watched the local economy wither with the decreased demand for coal and realized the trail could revitalize the town.

"This trail will bring people from out of state, from out of the country and from everywhere. They're gonna be walking through the woods here with money in their pockets and coming out looking for pizza and beer and a place to stay," says McGraw, who is also president of the TuGuNu Hiking Club.

According to McGraw, land companies that "own 80 percent of Wyoming County and most of the others"

### Birch Knob Section

**What:** Part of a 110-mile trail in Kentucky that is a key connector trail of the Great Eastern Trail and will connect with the C&O Railroad Trail.

**Where:** Between Breaks Interstate Park and US 23 at Pound, Va. Parking is at Carson Island Rd., Elkhorn City, Ky., and Apostolic Dr., Pound, Va.

**Distance:** 26.5 miles

**Difficulty:** Strenuous

**Contact:** Breaks Interstate Park at 606-589-2479

**Visit:** [parks.ky.gov/parks/recreationparks/pine-mountain-trail.aspx](http://parks.ky.gov/parks/recreationparks/pine-mountain-trail.aspx)

## Overmountain Victory Trail

continued from previous page

trail. The park service approached the various local governments last summer with a proposal to tackle this section. Hartman anticipates the land will be acquired through a combination of easements, purchases and donations.

"You'll literally be able to walk and see and explore the same sights and sounds that many of the Overmountain men experienced as they were marching to Kings Mountain,"

he says. "This system spans two states, three different counties, three different municipal jurisdictions and involves four different senators and two different congressional house representatives, so there's a lot of potential here for this collaborative effort to re-

ally approach national level funding," he says. He expects local government, state and federal money will be used to complete the trail.

He says the project will reap economic benefits from retiring baby boomers and upwardly mobile millennials who share a love of trails and pedestrian-friendly communities.

"We want to be that place that has a unique component that those generations will want to come to," he explains. "The big thing is to understand what people are looking for and figure out how you can maneuver yourself as a community to capitalize on the unique assets that you have."

Learn more at [nps.gov/ovvi](http://nps.gov/ovvi)



Service, which maintains the trail, saw that communities along the route were already making use of Overmountain historic sites and portions of the

continued on next page



Each year, the Overmountain Trail Association hosts a reenactment of the 330-mile march that led to a victory in the Revolutionary War. Photo courtesy of Sycamore Shoals State Park

### Elizabethton Linear Path

**What:** City park trail designated as part of Overmountain Victory Trail that will connect to the planned addition between Elizabethton and Abingdon

**Where:** Main parking at Riverside Park, Elizabethton, Tenn.

**Distance:** 6 miles

**Difficulty:** Easy, bike-friendly paved path

**Contact:** City of Elizabethton Parks and Recreation at 423-547-6441

## Overmountain Victory National Historic Trail

Autumn had just begun to steal the summer green from the slopes of Southern Appalachia on Sept. 24, 1780, when militiamen — farmers, blacksmiths, coopers and the like — marched southeast from the Muster Grounds in Abingdon, Va., to meet the British Army at the Battle of Kings Mountain in South

Carolina. Their 13-day, 330-mile march and subsequent victory marked a turning point in the Revolutionary War.

The Overmountain Victory National Historic Trail commemorates that victory. There are currently 78 miles of publicly accessible trail, and a 30-mile section from the Muster Grounds in

Abingdon to Sycamore Shoals State Park in Elizabethton, Tenn., is currently in progress. Two miles of the trail overlap the Elizabethton Linear Path and another 1.5 miles is in use in the state park. The section passes through the Rocky Mount State Historic Site in Piney Flats, Tenn., home of William Cobb, who made the march to Kings Mountain with his four sons.

Jon Hartman, planning and development director for the city of Elizabethton, says the National Park



Bart "Hillbilly Bart" Houke takes in the view from Mingo County during the first thru-hike of the Great Eastern Trail. The hikers traveled on roadsides in much of southern West Virginia, where the trail is incomplete. Photo by Joanna Swanson

are jittery about taking on the liability that would come with allowing the trail on their property.

"Southern West Virginia is the home of the Hatfield and McCoy [ATV] trail system," he explains. "That's a state-mandated entity and they've got millions of dollars worth of insurance and that's what those land companies like. So the only thing we know to do is to get the state to take the ownership and liability."

"It's really been at the state level that we've struggled," Swanson says. "It has felt like this is not a big enough priority for them to bother with." She adds, "All we need is to have permission and a couple gallons of paint to mark the trails."

Swanson points out that other states have gotten around the liability issue by

creating linear state parks, including the Pine Mountain Trail in Kentucky and the Cumberland Trail in Tennessee.

"This is a thing that they should all agree on in [the state capitol of] Charleston," McGraw says with obvious frustration. "The Democrats and Republicans and independents and communists and everybody else can agree that ... it's a great opportunity to have this national trail coming through."

Though frustrated by the state government's lack of support for the project, McGraw is committed to spending his golden years trying to carve an economic lifeline through his state.

"I'm an old man," he says with calm resolve. "My time is short, and I've got to do what I can do."

Learn more at [greateasterntrail.net](http://greateasterntrail.net)

## The Dungannon Square Dance

With the  
Empty Bottle  
String Band  
and caller

Matthew Hepler  
Saturday, Sept. 10  
7:30-9:30 p.m.

From 6:00-7:00 p.m., join for a workshop on traditional herbal remedies for colds and flus, led by Willie Dodson

The event is free and family-friendly! Concessions available for purchase to benefit the Town of Dungannon.

Presented by AppalachianVoices



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# Vermicompost: Let earthworms green your kitchen

By Savannah Clemmons

When Tracy Myhalyk first learned about vermicomposting in 2002, she was enrolled in an agroecology course as an Appalachian State University graduate student. After a colleague piqued her interest, she set up her own worm bin and began making compost.

Vermicomposting is the practice of feeding worms table scraps and other organic matter in order to obtain a richer soil.

A typical vermicompost bin contains roughly 1,000 worms in a moist, dark habitat made from damp newspaper, cardboard and leaves mixed with fresh organic matter. The worms consume the food scraps and paper items and then produce a nutritious compost made of the worms' feces, or "castings."

The compost has a number of uses, most commonly as a fertilizer for household plants and gardens. Vermicomposting recycles household waste into usable material faster than other forms of composting. It is also an aerobic process,

which means that odor-blocking oxygen is present during decomposition and prevents foul smells.

After a year of composting with worms, Myhalyk set up a booth at the local farmer's market and began advocating for vermicomposting and selling her one-of-a-kind kits with starter worms. While she no longer makes the kits, they are still a talking point across the area.

"Sometimes, someone will recognize me and say 'Hey, you gave me worms!'" Myhalyk says.

She has also taught workshops and classes on how to manage worm composting bins, as well as the environmental benefits of vermiculture.

## Customizing Compost

Requiring minimal time and resources, vermicomposting can be a simple and efficient way to lead a more sustainable lifestyle. It also allows individuals the chance to experiment with their setup.

Most composters, like Randal Pflieger, use their bins at home to process table waste. He has experience with traditional

non-worm composting both at home and in community gardens as the executive director of Grass to Greens, a yard-care service and social enterprise of Bountiful Cities, an urban agricultural and community gardening non-profit based in Asheville, N.C. Pflieger says vermicomposting is best used at home. Small bins can create compost for use in

gardens and household plants, or the worms can be used for fishing bait.

As decisions are made regarding the habitat, drainage, water content and harvesting, it is sometimes necessary to have a trial-and-error mentality.

For instance, when Pflieger finds it difficult to separate the worms from the compost, he makes use of other natural elements. He finds a sunny spot outdoors and dumps the contents of the worm bin. The solar heat dries the top layer of the compost, causing the worms to retreat inward to the cooler, wetter center of the compost.

Pflieger then separates the compost into smaller, dried-out piles, as the worms continue to retreat from the sun. He is typically left with compost as well as a "worm ball" that goes back into the bin to start the process all over again.

However, some challenges are more difficult. According to Tracy Myhalyk, due to Appalachia's frigid winters, keeping a compost bin from November to March requires being more vigilant of the temperature and humidity levels around the bin, and storing it in an insulated place such as an indoor kitchen or closet.

## Environmental Benefits

In the United States, a quarter of the country's municipal waste comes from food, yard trimmings or other organic



Of more than 4,000 species of worms, only a few are good for composting. Photo by Jimmy Davidson

matter that can be composted.

According to North Carolina State University, over 98 percent of food waste gets thrown into landfills where it decomposes and produces methane, a greenhouse gas that contributes to climate change. Landfills account for 20 percent of methane emissions in the United States. And worldwide, it is estimated that landfills emit between 30 to 70 million tons of methane each year, either directly into the atmosphere or into the surrounding soil.

Composting organic waste rather than disposing of it in landfills can significantly reduce methane emissions and diminish an individual's contribution to climate change.

For Pflieger, worm composting puts waste into perspective and can help people "think about how we generate waste, what we do with it." The issue of assessing an individual's contribution to municipal waste, Pflieger jokes, "opens up a big can of worms.♦



Vermicomposting is faster than composting without worms. Photo by Jimmy Davidson

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## Tips for Vermicomposting

### Which worms do I use?

The species *Eisenia fetida*, or red wigglers, are most commonly used for household compost bins. A typical starter system includes about 1,000 worms. Red wigglers can consume about 25 percent of their body weight each day.

### How do I set up the bin?

For a red wiggler habitat, place newspaper, dried leaves, water and other organic material into a plastic bin, and make certain the material has the consistency of a moist sponge. Ensure that the worms have a comfortable temperature of between 60 and 70 degrees. Cut holes in the top of the bin to provide ventilation.

### What do I feed the worms?

Worms can eat almost any organic or biodegradable material, including vegetables, paper coffee filters, rinsed eggshells and other table scraps, but meat or dairy products can attract unwanted pests and scavengers. Citrus should also be avoided because it contains the chemical limonene, which is harmful to worms.

### How often do I feed the worms?

Red wigglers do not need to be fed on a regular schedule. The more worms that are in a bin, the more frequently food can be added. To avoid a bad odor, make sure that the worms have eaten all of their food before placing more into the bin, and periodically add more newspaper or dried leaves.

## Naturalist's Notebook

# Mistaken Identity Learning to recognize the harmless northern water snake

By Savannah Clemmons

Summer in Appalachia is the perfect time for hikes, swims and camping trips. But outdoor adventures can create tense encounters with species that are traditionally labeled as dangerous, such as snakes. Some snakes, like the venomous copperhead, should always be avoided. But most Appalachian snakes, like the northern water snake, are harmless to humans.

The northern water snake, or *Nerodia sepidon*, is one of the most common snakes in the eastern United States. Their habitat ranges from Maine to Georgia, and from the Great Plains to the East Coast.

According to Michael Salotti, president of the Virginia Herpetological Society, northern water snakes never stray more than two or three hundred yards from water. This means that they can be frequently spotted at recreational water sources like swimming holes or waterfalls.

Throughout the warmer months, this non-venomous snake will bask on rocks or hang on branches near the water. "I often notice them hanging in tree branches about six feet above the water's surface," Salotti says.

The northern water snake emerges from hibernation between March and April. They mate in late April and give birth between August and September.

The average female can give birth to around 20 live snakes at a time. The snake is most active in summer, just as people are flocking to water to cool off.

Unfortunately, people sometimes kill these harmless snakes after mistaking them for a more dangerous species, such as a copperhead or water moccasin. Water moccasins are not found in the cooler, higher elevations of Appalachia. But copperheads, like northern water snakes, swim and can be found near water across the region. So, if a snake is not easily identifiable as a non-venomous water snake, it is best to beware.

Northern water snakes can grow up to three feet long, and females are larger than males. The snakes have darker skin that ranges from brown to grey. According to Salotti, northern water snakes are more easily misidentified as they grow older, their patterns fade, and their skin becomes darker.

Although this snake sometimes falls victim to death by mistaken identity, Salotti says the overall population is healthy. Despite loss of habitat due to human population growth, it is not an endangered or threatened species. Northern water snakes are also protected throughout Georgia, where it is illegal to kill or keep non-venomous snakes.

Northern water snakes are relatively harmless creatures. Salotti says that if confronted by a human or larger animal on land, this snake will "try to

flee into the water" to make an escape.

But if a northern water snake feels threatened or backed into a corner, it just might defend itself. Water snakes have strong bites, which can leave deep cuts. They can also release a powerful-smelling musk from their tail, or eject fecal matter in self defense.

According to the Virginia Herpetological Society, northern water snakes can also mimic venomous rattlesnakes by vibrating their tail to ward off predators.

If encountered with a northern water snake, Salotti advises simply leaving the snake alone, as confrontation is unlikely. However, in the event of a snakebite, wash the wound with soap and water and apply antiseptic.

Like other species of snakes, the



The northern water snake is a non-venomous snake found across Appalachia. Photo © John White / Virginia Herpetological Society

northern water snake plays an important role in natural areas. The snake, which eats primarily amphibians and fish, acts as a major predator in forests and rivers and maintains balance in the food chain.

"Everything plays a role" in ecosystems, says Salotti. "You remove one of the predators, and it has a trickle-down effect."♦

## BUILDING BETTER SPONSORED BY



### How does building fit into the human ecology?

Built environments are part of our human ecology. Almost every human on the planet encounters an environment every day that they have altered, built or shaped to some degree. For most U.S. residents, one such environment is a stick-framed house. At Sunny Day Homes, we like to consider the impact that creating the built environment has on the natural environment as well as the wellbeing of the occupants.

Every house is responsible for a great deal of energy, both the energy required for the construction process and the building's ongoing energy use. Depending on a client's individual needs, interests and resources, we can help design a house that will minimize the impact on the environment. We do this by thinking about the total energy embodied in a house and how much energy it will take to maintain the home.

Construction projects require a large amount of energy. For instance, the pro-

cess of making concrete creates a huge amount of carbon dioxide. Sometimes, though, it might be worth it to have a large amount of concrete in your home if you are using it to help offset or eliminate your heating and cooling needs. Sunny Day Homes currently is constructing a home that will have a finished floor of acid-stained concrete. Designed by an architect who also is an Appalachian State University technology professor, it is intended to deliver a great deal of carbon-free passive solar heating. The homeowner also plans to install solar panels so that the house will be energy independent.

This ties into the home's ongoing energy consumption. We will install Energy Star or energy-efficient appliances and take great care to construct the house so that little energy will be wasted or lost.

We take considerations like these into account and encourage people to think about the whole impact of their home.

**ABOUT SUNNY DAY HOMES:** Sunny Day homes is a small, family-owned general contracting firm that has been incorporated since 1997. They built the first certified green home in North Carolina's High Country in 2008 and have been advocating for non-toxic, environmentally responsible and energy-efficient building ever since. Call/text (828) 964-3419 or visit sunnydayhomesinc.com

## Venomous Or Non-Venomous?

The southern and central Appalachian region is home to more non-venomous snakes than venomous ones. The two important exceptions are the copperhead and timber rattlesnake.

Typically, non-venomous snakes have rounded heads. But many harmless species can flatten their heads into a triangular shape to imitate a venomous snake. Most venomous snakes have slot-like pupils, unlike species like the northern water snake,

which has rounded pupils.

An easier way to identify a snake is by looking at its pattern. Northern water snakes have a bulb-shaped pattern that widens in the center, whereas the venomous copperhead has an hourglass-like pattern. Michael Salotti says that becoming familiar with the patterns of different species native to a specific area is the most reliable way to identify a snake.



The harmless northern water snake (left) and venomous copperhead (right) are often confused, but their patterns are distinct. Photos © John White / Virginia Herpetological Society



# Bioenergy in the Southeast

By Elizabeth E. Payne

Frequently presented as a renewable alternative to fossil fuels, biofuels and biomass rely on organic materials — such as trees and plants — to convert the sun’s energy into a form that can be used to generate electricity or fuel vehicles. But across the Southeast, efforts to harness this energy are putting natural resources under tremendous pressure.



## Burning Southern Forests to Fuel Europe

Forests across the Southeast are seen as a potential source of “green” energy by the growing wood pellet industry. Photo courtesy of Dogwood Alliance

Near Ahoskie in eastern North Carolina, the global push for “green” energy can look like a grove of cypress trees reduced to a wasteland of stumps. This scene is repeated across the Southeast, where forests are being cut to fuel Europe’s — and particularly the United Kingdom’s — push to use alternative fuels.

In 2009, the European Union adopted a set of energy and climate goals for 2020. These targets included a 20 percent cut in greenhouse gas emissions, a 20 percent improvement in energy efficiency and a commitment to fuel 20 percent of the E.U.’s energy from renewable sources.

The guidelines consider all biomass, regardless of its source, both carbon neutral and renewable. The European Commission defines biomass as “organic material such as trees, plants, and agricultural and urban waste ... used for heating, electricity generation,

and transport fuels.”

Despite its well-meaning goals, this policy has led to the dramatic rise of the wood pellet industry in the southeastern United States.

According to the United Kingdom’s Biomass Energy Centre, “wood pellets are made by compressing dry sawdust or wood shreds under extremely high pressure until the [wood tissue] softens and binds the material together.” Their compact size and low moisture content make wood pellets better for export and more energy dense than less processed wood.

The U.S. Energy Information Administration reports that the country’s export of wood pellets nearly doubled from 1.6 million tons in 2012 to 3.2 million tons in 2013. The following year, exports increased by an additional 40 percent, rising to 4.4 million tons and making the United States the world’s leader in wood pellet export. Most of the pellets are shipped to the United Kingdom to help meet the EU targets set in 2009.

According to a study published in Science Magazine in 2013, forests in the southeastern United States had a disturbance rate four times greater than that of South American rainforests during the years between 2000 and 2012. Forest disturbance can result from natural events such as fires or insect damage, or from man-made events such as logging or clear-cutting.

Adam Macon, a campaign director for Dogwood Alliance, a nonprofit environmental organization based in Asheville, N.C., connects this increase

with the large-scale logging operations that support the wood pellet export industry and have impacted tens of millions of forested acres.

Many southeastern wood pellet factories are large operations located near the coasts for greater access to ports for export. But small facilities serving local markets also exist in Southwest Virginia and western North Carolina.

### Calculating Carbon Cost

The problem with identifying all biomass as carbon neutral arises from a misunderstanding of how burning biomass would impact climate change.

Policies, such as those in the European Union, that consider biomass to be carbon neutral are based on the assumption that carbon released when burning trees will be reabsorbed by a subsequent generation of forests replanted in place of the harvested trees. However, a report released by the Partnership for Policy Integrity in June concludes that far from being carbon neutral, burning wood on a large scale can be worse than burning fossil fuels.

“Typical [carbon dioxide] emissions at a utility-scale biomass plant are 150% those of a coal-fired plant, and as much as 400% those of a natural gas facility,” the author of the report states. “Not only does burning wood emit more carbon pollution per unit energy than burning coal or gas, but also, cutting and burning the trees that were growing and taking carbon out of the atmosphere dramatically increases the emissions impact.”

In May 2015, the Natural Resources Defense Council, an environmental advocacy group, pointed to the growing scientific consensus that burning biomass

for electricity would not reduce carbon emissions for 35 to 100 years, depending on the types of forests replanted. “This time period is significant,” an issue brief from the organization states. “Climate policy imperatives require dramatic short-term reductions in greenhouse gases, and these emissions will persist in the atmosphere well past the time when significant reductions are needed.”

This is because emissions rates would only begin to fall after the forests have had several decades to recover, and only if the harvested trees are replanted and not themselves reharvested. Neither of these outcomes is guaranteed to happen.

Due in large part to advocacy by citizen and environmental groups, the European Commission announced in January that it has opened an investigation into whether the United Kingdom’s dependence on biomass to meet its emission goals is in keeping with European Union climate objectives. It is unclear what impact the United Kingdom’s recent vote to leave the E.U. will have on this climate policy.

In April, the U.S. Senate passed a bill including an amendment that new energy policies must reflect the “carbon-neutrality of forest bioenergy.” This provision is similar to the E.U. policy that has dramatically impacted southeastern forests. If enacted, the measure would likely lead to continued deforestation.

### Biomass Closer to Home

Utilities in the Southeast are also converting to biomass. Since 2013, Dominion Virginia Power has converted three of its coal-fired power stations to burn 100 per-

*continued on next page*

## Fueling Cars with Plants A test case in North Carolina

Biofuels — liquid fuels like ethanol that are made from the fermented sugars of feedstocks such as corn or sugar beets — are usually associated with the corn-belt of the Midwest. But in 2007, North Carolina became a leader in research in this field when the legislature created the Biofuels Center of North Carolina.

For the next six years, the state invested significantly in the research and development needed to establish the industry in the state. The center conducted research on various feedstocks such as switchgrass and giant miscanthus, which is in the sugarcane family. The center also worked to establish partnerships along the supply chain with the hope of establishing more biofuel industry in the state.

But as the state’s leadership changed, so too did the commitment to funding

this research. According to a press release, the center was closed after its funding was eliminated from the 2013-2015 state budget.

The N.C. Agriculture and Consumer Services Department inherited a quarter of the center’s budget and a much reduced mission, according to E&E Publishing.

“The new leadership of North Carolina displayed an early lack of interest in that which is called renewable, that which is judged sustainable, that which is judged environmentally compelling, that which is judged innovative, and that which requires sustained long-term attention,” W. Steven Burke, the former president of the Biofuels Center, told E&E Publishing, in July 2014.

Despite the political changes and failed investments, North Carolina



Giant miscanthus was one of the biofuel feedstocks tested by the Biofuels Center of North Carolina before its funding was eliminated. Photo courtesy of the Biofuels Center of North Carolina

continues to take steps in this developing industry. Blue Ridge Biofuels, which produces biodiesel from recycled restaurant cooking oil, moved last year from its Asheville plant to a larger factory in Catawba County, N.C. And in 2014, Virginia-based Tyton BioEnergy Systems bought an abandoned biofuels facility in North Carolina and is now working to make aviation fuel from genetically modified tobacco plants.

Dr. Bill Kovarik, professor of communications at Radford University and

former editor of this publication, literally wrote the book on biofuels. “The Forbidden Fuel: A History of Power Alcohol” was written by Kovarik and two colleagues in 1982 and revised in 2010.

According to Kovarik, the transportation sector will likely continue to use various liquid fuels, such as gasoline and diesel, for some time because of the advantage liquid fuels currently have over battery storage and technology. “All these different kinds of fuels need different kinds of bioenergy solutions,” he says.

But Kovarik stresses that it is important for the United States to adopt a set of standards to ensure that the biofuels industry develops in a responsible way. Such standards, he says, should safeguard biodiversity and labor standards, accurately account for the carbon emissions, and guard against pollution during production and use. ♦

## Burning Forests

*continued from previous page*

cent biomass, and Duke Energy is exploring similar options.

According to Biomass industry officials, these facilities use wood that would otherwise be wasted. Bob Cleaves, president and CEO of the Biomass Power Association, told National Public Radio that the process relied on materials such as “orchard prunings and rice hulls, tops and limbs from forestry operations, bark, sawdust.”

A 2012 report by Downstream Strategies, an environmental consulting group, found that if biomass is produced from wood that would otherwise be wasted, and if energy production

is at a small scale, biomass could play an important role in an Appalachian energy future relying primarily on renewables such as wind and solar.

But Adam Macon of Dogwood Alliance is less optimistic.

“Existing forest products industries, such as paper or saw timber, have been utilizing the residues from logging for generations,” Macon says. “So, this is not like there was a whole bunch of wood just lying around. ... This is an additional market for wood. And what that has done is that has driven an increase in logging, and an increase in conversion of our natural forests to pine plantations. All in the name of addressing climate change.”

Macon and his colleagues from

Dogwood Alliance have documented trucks loaded with mature trees entering — and empty trucks leaving — Enviva’s wood pellet facility in northeastern North Carolina, which primarily produces pellets for export. This practice was also witnessed by a reporter from The Washington Post last summer.

Macon, who grew up in eastern

Kentucky a few miles from a mountaintop removal coal mine site, puts the wood pellet industry in context this way: “It’s the same story. It’s big companies coming in, extracting our natural resources, exporting the profits, exporting our natural capital, and leaving little benefits back to the communities,” he says. ♦



A cypress grove is reduced to stumps near the Enviva wood pellet factory in Ahoskie, N.C. Photo courtesy of Dogwood Alliance



Mature trees, not merely limbs and branches, enter the Enviva wood pellet manufacturing plant in Ahoskie, N.C. Photo courtesy of Dogwood Alliance

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# Growing Up Appalachian

The next generation is overcoming barriers to achieve their dreams

By Molly Moore

Answers to broad questions about Appalachia's future — such as how coal-bearing counties will transform as the region's chief industry declines — are invariably traced back to the next generation. The region's future will be shaped one child, one teen and one young adult at a time.

The story of what young people in the region are experiencing — what their hopes and dreams are and what obstacles are in their way — are as varied as the teens and young adults themselves. Many Appalachian youth express concern about poverty and unemployment, the effectiveness of the educational system, and the national opioid and prescription drug abuse epidemic that has disrupted families and young lives.

In rural Appalachia, there's long been a perception that to be successful, young people must leave the mountains. But today, there is a growing movement among local residents to undo that narrative and create opportunities for youth of all backgrounds, identities and aspirations to thrive.

Numerous regional organizations and programs — both youth- and adult-led — are working to support young people. We spoke with individuals from several such organizations to provide a window into their stories.

## Clintwood Learning Co-op

In a one-room building overlooking the rolling mountains of Dickenson County, Va., three young teens are focused on a small robotic car. The car has four standard wheels, but its body is a flat platform with two exposed circuit boards, a nest of wires, a battery pack and a small PVC pipe mounted at the front.

Using coding and mechanics they've built through trial and error and an improvised light detector inside the PVC pipe, the boys send the car toward a lamp on the floor. If all works as intended, the car will detect the light and stop before the vehicle

impacts it. According to their teacher, Vincent Fanelli, these teens are experimenting with a version of the same technology that underlies advanced research into self-driving cars.

The free after-school program in robotics is offered by the Clintwood Learning Co-op, a project of Fourth World/USA, which is a branch of a global organization dedicated to eradicating poverty. Vincent and Fanchette Fanelli have run the center for more than twenty years, hosting workshops in traditional skills such as weaving as well as newer fields like computers. The robotics program is their first youth-focused venture.

The teens all have rave reviews. "It gives a new perspective to electronics, and how we can start commanding our own to do what we want," says workshop participant Elijah Kiser. The students have taken their experiments home to tinker with coding, circuit boards and solar lights. For one 10th-grader, this interest in mechanics led to an engineering class at the vocational school, where he helped set up a 45-foot wind turbine to power the heating and lights in a storage building.

These young teens have clear ideas of what they would like to do in the future — go to college, work with military robots and drones or do computer animation. Asked if they want to stay in Dickenson County, they respond with a chorus of "yes," citing family, the landscape and the hunting and fishing opportunities.

But for now, as much as the teens enjoy their twice-weekly foray into robotics and coding, the program's reach is small. Situated just a five-minute drive from the county's new consolidated high school, it's nonetheless difficult to attend for students under 16 or without access to a vehicle. Dorothy Kiser, Elijah's mother, drives 45 minutes



Elijah Kiser adjusts the robotic car at the Clintwood Learning Co-op, at left. Hannah Cox, Nathanael Green, Jeremiah Cox and Emily Cox transform salvaged squash into art in the parking lot of the former RAMPS building, above. Photos by Willie Dodson

to bring the three boys to the co-op; she visits and crafts with several other local women at the co-op's main building while the program is in session.

Vincent Fanelli hopes to make transportation arrangements with the school to make the robotics program more accessible.

The future for young people in the areas comes down to having viable opportunities, notes Dorothy Kiser, citing the growing solar and wind industries as examples of what could be. She says it would be difficult for her son to pursue a computer programming career locally right now. But that could change.

"We just started our community center and I noticed that a lot of the places in Dickenson County have started to get people more involved in their communities to try to pull in some job opportunities and companies," she says. "Like with this program, this was a blessing for me."

Visit [fwlearningco-op.org](http://fwlearningco-op.org)

## Western Youth Network

In northwestern North Carolina's High Country, many of the campers at the Western Youth Network summer program had never been to the overlooks along the Blue Ridge Parkway, a 469-mile scenic drive maintained by the National Park Service that runs through these campers' home counties. When they journeyed to parkway overlooks in July, the campers were overcome by emotion and one told camp staff it was the best day of his life.

The Western Youth Network primarily serves middle-school-aged youth, but also provides mentoring

for ages six to 17 and runs a substance abuse prevention effort.

The nonprofit's Executive Director Jennifer Warren says that one of the greatest challenges is a phenomenon called toxic stress, which can occur when youth experience traumatic events without the support of a stable caregiver — common especially with the "exceptionally high amount of children in foster care" in the region. According to Warren, toxic stress can lead to "poor impulse control, inability to make good social bonds or resolve conflict peacefully."

"One of the ways we're really trying to work to repair this is to match kids with a stable, nurturing caregiver, through our after school or summer programming, because that's the one thing that the research shows actually pulls a kid out and helps them rewire their brain," she says.

In rural areas, Warren notes, the problems kids face can go unnoticed. Youth without transportation who live farther from towns have limited access to opportunities and social services. To address transportation, Western Youth Network has a fleet of vehicles and is able to take kids home following after-school programs and provide pick-up and drop-off services for summer programs.

But the mountains can also offer advantages. "I also think about how easy it is for people to access land for playing, being physically active, running around, gardens that allow them fresh food at a reasonably low rate," Warren says.

continued on page 14



# Envisioning Our Future



Photo courtesy Appalachian Media Institute

For 28 years, the Appalachian Media Institute has given young people from Central Appalachia a platform to explore their voice, document issues in their communities and elevate rural stories.

A program of Appalshop, a multimedia arts and cultural organization in Whitesburg, Ky., AMI interns gain hands-on experience with media production and learn about topics such as digital filmmaking, podcasting and web-based storytelling.

This year, the eight-week program's theme was Envisioning Our Future, and AMI participants centered their storytelling around youth-led hopes for the region. The program also partnered with the Carnegie Museum of Art in Pittsburgh, Penn., to allow rural and urban Appalachian youth to exchange skills and experiences. Youth also collaborated with leading regional artists on a media piece for a national outlet.

The Appalachian Voice asked this summer's AMI interns to share their vision for young people in Central Appalachia. We solicited their thoughts about what obstacles might be in the way and what would help turn their aspirations for the region into reality.

Here are excerpts of their answers. To read their full responses, visit [appvoices.org/ami-visions](http://appvoices.org/ami-visions)



Ally Baker, 18  
Whitesburg, Ky.

My vision is that the young people here develop new ways to live and thrive here without the coal industry. I hope that the young people rebuild and revive the poverty-stricken counties, and restore the culture mixed in with their own beliefs. Most of all my vision is that people can be themselves in a thriving and kind community. In order for Appalachia to survive we must come together. We can't be afraid of change anymore.



Aaron Combs, 21  
Vicco, Ky.

My vision for Appalachia is a modern economy based around art and to break away from the companies and corrupt politicians that keep us held back. The main obstacles to progress in the region are both political corruption and the crushing poverty that so many are forced to live with. This vision could easily be made real by political activism and being engaged where you live.



Jade Slone, 19  
Knott County, Ky.

My vision for Appalachian youth is that they have the opportunity to grow in a welcoming society ... I know that it exists here, they just need to find it. The only obstacles are the few people who are unwilling to accept change. It's fully possible if everyone works together to ... educate one another without judgment and to consider each other with a new perspective.



Jaydon Tolliver, 17  
Whitesburg, Ky.

My vision for the youth of Appalachia is that they will showcase their talents and make this region a sanctuary for artists, musicians and innovators. I believe that we have a lot to offer. [But] the vast majority of people in the area feel a sense of hopelessness since our central source of income has been fading away. People aren't sure of what they can do here. If the youth were to broaden their views and come together to make something happen, this would change.

## 2016 Appalachian Media Institute Films

This year's Appalachian Media Institute produced four films, which premiered at Appalshop on July 29. One explores avenues for economic growth in Central Appalachia and chronicles four artisans working to build a future in community theater, agriculture, ceramics and music. Another examines the impacts of discrimination on a small rural community in Eastern Kentucky and the community's response to the Black Lives Matter movement and to discriminatory

measures against LGBTQ individuals. Not A Daughter, the only film titled at press time, tells the story of one teen's struggle with LGBTQ discrimination in the hills of Appalachia. The fourth documentary film investigates the impact that outsider interest and performance of old-time and bluegrass music has had on the style, instrumentation and dialect of mountain music. View the films online at [ami.appalshop.org](http://ami.appalshop.org)



Elyssia M. Lowe, 22  
Grayson, Ky.

For a vision to come true there has to be a leader and a visionary. Someone to present ideas and encourage others. Behind every great movement there needs to be a support system. We need more great leaders and more people who are willing to stay and work as that support system.



Oakley Fugate, 22  
Letcher County, Ky.

PRIORITIZE! ... [Let's] work on building a better future. Work on educating and inspiring our youth. We were one of the richest states 200 years ago. We went from that to a laughing stock. We had billions in coal here and were used like a dishrag. Let's stop and focus on what makes the area great. Not the land, not the past, not a prison, not an ark [theme park], but our people.



The AMI team visits the Carnegie Museum of Art. Photo courtesy Appalachian Media Institute



Elijah Bedel, 22  
Adams County, Ohio

I've met many young people [in Appalachia] who dare to question the negative elements within their communities and even think differently than members of their own families. This takes an incredible amount of courage and willpower. I believe that greater support for open-mindedness and sustainable economic practices would truly help young central Appalachians to make a real impact in their communities. Encouraging young people and investing in their future should be first and foremost. Better education is a must. Instilling mindsets which support cultural diversity as well as local business would sincerely help Appalachian youth.



Josh Collier, 16  
Waco, Ky.

With the influx of industrialization a little more than a century ago, [my ancestors] began to be controlled by the same fostered dependence that has governed our people ever since. Now that we have a clean slate [with the removal of the coal industry] ... I want to see our people become a successful, thriving culture once again. The most blatant obstacle, quite frankly, is a lack of self-confidence and feeling of ability. In order for this vision to be a reality, we must work harder to function together. We need to better utilize current youth development programs, as well as create new ones. Most of all, we need to believe we can be successful again.

Perhaps that's why, when the kids reached the top of one of the parkway overlooks, they shouted: "I love this place!"

Visit [westernyouthnetwork.org](http://westernyouthnetwork.org)

### RAMPS Youth Engagement Project

The members of Radical Action for Mountains' and People's Survival didn't set out to run a youth program. But part of the environmental collective's philosophy of direct action is to directly serve and empower communities. So when kids and teens started showing up at the rundown building in Whitesville, W.Va., that served as their office and home, they went with it.

"The fact that the kids were kind of jammed in here, for many, many hours, a lot — that was telling me that what they needed were activities for young people," says David Baghdadi of RAMPS.

In the fall, members of the collective, often accompanied by neighbors and friends, took youth out into the nearby woods to gather timber, teaching interested kids how to split firewood. Youth whose families rely on wood heat took firewood back to their families. Participants also received a \$2 hourly wage, and a portion of the profits from any wood that was sold to others in the community.

The group also took kids out to the woods to gather ginseng and offered art activities, the opportunity to experiment with video cameras, and perhaps most importantly, a central gathering spot.

"In my opinion, the kids kind of run a little bit wild here," Baghdadi says, hypothesizing that it might be because

some of the negative examples they see in the community. "If they see the adults and the authorities divesting, not having much interest in the community, they take that in." He says that overall, the group is trying to be a positive presence and "show to young people that there are people who want to invest in this place, that want to invest in them."

In the spring, RAMPS purchased an old boarding house in town and set aside a youth room, replete with books, toys and arts supplies. "That space is really increasing our capacity to do things and increasing our capacity to deepen connections with the community here," says Rachel Berkrot, a member of RAMPS focused on the youth project. Neighbors and youth of all ages hang out on the porch and share meals, and one of the RAMPS members has been teaching kids how to make donuts in kitchen.

The group has also acquired a nearby gardening space. Along with others in the community, they intend to build raised beds and eventually cultivate fruit trees and medicinal herbs — and give the youth an opportunity to get involved. Another large project on the horizon is building a cabin with the young people in the hills above Whitesville. Berkrot notes that the endeavor would give kids another activity as a chance to practice construction skills.

"[Members of RAMPS] are setting a good example for the kids, they really are," says Tom Bowe, father of Coy, one of the regular youth attendees. "The [kids] are learning to make your way in life."

Visit [rampscampaing.org](http://rampscampaing.org)



Hannah Cox experiments with a video camera with guidance from Rachel Berkrot, a RAMPS member. Photo by Willie Dodson

### Haywood Community Learning Center

In Haywood County in western North Carolina, Kyle Ledford operates an alternative learning program that provides students who have dropped out of high school with a chance to recover credits, earn a GED or return to their home school.

"We certainly don't have enough housing, enough public transportation," Ledford says. "Generational poverty of course in [Appalachia] is very, very hard to break. This is a societal problem, it's going to take a societal solution."

The current Haywood Community Learning Center serves between 175 to 200 students at any given time, and graduates between 35 and 50 per year.

Each student has a customized plan that includes providing transportation and food assistance to students who need it. More than a dozen local faith organizations also serve hot lunches and breakfasts at the center year-round. And the academic component is flexible and allows students to take as much or little time as they need to master a subject.

The dropout rate at Haywood County Public Schools has fallen from 8 percent in 2007 to 0.93 percent in 2014. Despite this success, Ledford isn't satisfied with the post-diploma options for young people.

"The kids that we have in the building, the majority are interested in the trade aspect," he says. "The the greatest barrier to them is generational — [the feeling that] they can't be the first person to do that. And the lack of opportunity in this area to get that type of training."

Ledford observes that many students who go on to community college

for vocational training get stymied by prerequisite and remedial classes. "If school didn't work for you for whatever reason, more of the same isn't going to work for you again," he says. "I think the economic vitality of the region is more important than adhering to a bunch of rules."

"You have to work outside the box, kids aren't one-size-fits-all," he says.

Visit [clc.haywood.k12.nc.us](http://clc.haywood.k12.nc.us)

### Rural Appalachian Improvement League

Many residents of the Wyoming County, W.Va., town of Mullens are familiar with both hardship and rebuilding, whether it's economic struggle related to the coal industry's latest bust or devastation from the landmark 2001 flood that inundated the town.

The Mullens Opportunity Center, formerly a public school, is a testament to community service. Local volunteers help maintain the center's gardens, college spring breakers built the high tunnel to extend the growing season, and a visiting team of AmeriCorps service members constructed the center's outdoor community stage.

On an unseasonably warm morning in December 2015, roughly a dozen local residents gathered at the center to share their thoughts on reinvigorating the area. The people in the room were serving with the nonprofit Rural Appalachian Improvement League through a variety of agencies, including a workforce development program called ROSS IES, the national service program AmeriCorps, and the Experience Works program for seniors.

There was no shortage of ideas — establishing a shop to repair all terrain vehicles, fixing up old buildings, cleaning up the local river for fishing tournaments and building hiking trails, to name a few.

Though the ROSS IES and AmeriCorps members were young themselves — generally in their late teens and early 20s — many expressed concern about the generation younger than them.

Shane Bishop, a local resident par-

continued on next page

icipating in the program through ROSS IES, said it might be up to his generation to help kids growing up now become involved in the community instead of falling into a habit of disengagement.

"They don't see where their actions are taking them," he said, noting the state's high rates of obesity and prescription drug abuse. "It's just time for people to open up their eyes."

The group discussed the combined factors that some young people in the area face: troubled home lives, addiction to social media and video games, and the drug abuse epidemic. Soon, the topic changed to what the RAIL team could do about it — ideas such as hosting movie screenings of popular films to bring youth to the center.

"If we can get the ball rolling on half of this stuff and get more youth members, I say we could probably get it done," Alexandra Church, as ROSS IES member, said of the group's ambitions. "It's just that [younger people] need an example, they need someone to start it."

Many of the team's plans were centered around summer. But because of the state's spring budget delay, the ROSS IES workforce program's funding didn't come through in time and the six youth funded by the program lost their positions.

This summer, RAIL has four AmeriCorps members. With the help of local volunteers, the team is focused on gardening, hosting a farmers market and preparing a community play based on local history.

Ruby Ingram serves with the AmeriCorps Farm-to-School program teaching gardening and helping build raised

beds at area schools. According to Charlene Cook at the Mullens Opportunity Center, one of the kids was so inspired by his experience with raised beds at school last year that he decided to start gardening at home. Local volunteers and some of the RAIL youth plowed him a garden space, and now he sells his own produce at the center's farmers market.

Visit [railwv.org](http://railwv.org)

### The STAY Project

"STAY is about building youth power across the region to improve the experience of youth who live here," says Izzy Broomfield, a steering committee member of The STAY Project. Short for Stay Together Appalachian Youth, the group aims to support central Appalachian young people — generally ages 14 to 30.

Broomfield, a Berea, Ky., native who also currently serves as an AmeriCorps VISTA in Hazard, Ky., would like to see more intergenerational collaboration and more opportunity for youth to be involved in decision-making that affects them. At times Broomfield has felt like the "token millennial" at the table — given a seat, but not always listened to or respected.

Kendall Bilbrey, coordinator of STAY, notes two recent examples of young people in eastern Kentucky speaking out — and sometimes being heard — about civic issues.

In May, the Letcher County Fiscal Court proposed an ordinance stating



Campers with the Western Youth Network in Boone, N.C., pose with the organization's new vehicle, nicknamed the Spaceship. Photo courtesy Western Youth Network

that the county would not comply with any regulations that opened public restrooms to transgendered people. A group that identified themselves as "young leaders, most of us in high school, who have lived and grown up in this county" wrote the magistrate a public letter opposing the proposal. The ordinance failed in a vote of 5 to 1. Bilbrey notes that while the dissenting magistrates cited fear of legal trouble, there was "a lot of pressure created from the ground up, which I think tipped the scale."

The Letcher Governance Project, of which Bilbrey is also a member, is another example of recent youth activism. The group, comprised of local residents who are opposed to a new federal prison proposed for the county, protested at a regional economic development conference in June. "[Local and regional authorities] keep saying that young people aren't coming to participate in their economy or in their community, but when they do and it's something [the authorities] disagree with, we're shut out," says Bilbrey.

The anti-prison organization has been bringing attention to the proposed jail's \$444 million price tag by asking people on social media to share alternative

ideas about how that money could be spent in eastern Kentucky. According to Bilbrey, many respondents suggested state-of-the-art mental health and drug rehabilitation services.

"Why don't we take problems that are often criminalized in

our community turn them into opportunities for healing and support?" they ask. "The more we can shift that the better it will be for young people, for all ages."

Looking forward, Broomfield says it's important that central Appalachian residents "be intentional about creating opportunities for young people." Broomfield notes that while there's widespread need for employment, younger adults without families or other commitments are more likely to leave if they can't find viable work.

STAY member Brandon Jent grew up in Whitesburg, Ky., and earned a college degree at the University of Kentucky in Lexington. Upon returning to his hometown, he interned with the Appalachian Media Project (see page 12) and became involved with the youth organization. Jent says his experiences with the Appalachian Media Institute and STAY have helped him see central Appalachia as "a place where people can live their dream."

"There's always been this pressure to leave and not really an option to stay," he says. "Both are on the table; home is where you want it." ♦

Visit [thestayproject.com](http://thestayproject.com)



Shane Bishop of Wyoming County, W.Va., discusses ways to improve the community with other team members at the Mullens Opportunity Center. Photo by Willie Dodson.

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# CLEANING UP A MESS

## Coal Ash Across Appalachia

By Hannah Petersen and Elizabeth E. Payne



Little Blue Run in Pennsylvania is the nation's largest coal ash impoundment. Photo by Chris Jordan-Bloch / Earthjustice

Shortly past midnight on the morning of Dec. 22, 2008, a dike at the Tennessee Valley Authority's Kingston Fossil Plant in Roane County, Tenn., ruptured. In the nightmare that followed, more than 1.1 billion gallons of coal ash rushed from a storage impoundment into nearby rivers, covering at least 300 acres with toxic sludge.

This was the nation's largest coal ash spill, yet in the six years that followed no federal rule was passed to prevent such a disaster from happening again. And then it did.

On Feb. 2, 2014, a pipe running beneath a coal ash impoundment in Eden, N.C., failed. As a result 39,000 tons of coal ash, together with 27 million gallons of contaminated water, spilled into the nearby Dan River.

These two major spills brought national attention to the dangers of coal ash, as advocates and residents dealt with both the damage and lack of state and federal oversight that allowed for the disasters.

### The Making of a Mess

Coal ash is the byproduct of burning coal to create electricity. Nearly 140 million tons are produced each year in the United States. The ash contains heavy metals and contaminants such as arsenic, mercury, cadmium and selenium that can pollute water sources if not properly managed. These pollutants have been linked to negative health effects including cancer, reproductive problems and lung disease, according to Physicians For Social Responsibility.

The majority of the coal ash across the country is stored near waterways in unlined wet impoundments. Scientists

at Duke University have recently proven that this form of storage threatens the quality of water and health of communities nearby, when the toxins can leak out of the pits into ground and surface water.

In 2012, Earthjustice, a nonprofit environmental law organization, sued the U.S. Environmental Protection Agency for failing to regulate coal ash on behalf of 11 groups including Appalachian Voices, the publisher of this paper, and Kentuckians For The Commonwealth. At that time, there was no federal rule surrounding coal ash storage or cleanup, and this toxic waste product was less regulated than household trash.

In December 2014, the EPA released a long-awaited federal rule for coal ash disposal. The rule lays out guidelines for greater monitoring for dust and groundwater contamination, publication of monitoring data, and regular inspections of the containment facilities. The rule also established deadlines for closing ponds, but allows for a practice called "cap-in-place." This closure method allows the utilities to leave the ash in an unlined pond and to simply cover the impoundment with a liner, which doesn't prevent the ash from entering the groundwater.

But the rule also classifies coal ash as a solid — not hazardous — waste, the opposite of what the advocacy groups had requested. A hazardous classification would have required all states to adopt the EPA rule as a minimum standard for coal ash disposal, and set

stricter national standards.

Given the solid waste classification, it's mandatory for utilities that produce coal ash to follow the EPA's rule, but it's optional for states. This means that utilities must monitor their facility's actions in accordance with the EPA standards, but the state doesn't have to enforce compliance. Without the state regulators ensuring that facilities are meeting federal standards, the responsibility falls on citizens. To enforce the regulations, citizens can file lawsuits against the utilities for non-compliance.

"We see in state after state, that the state bends to the will of industry," says Rhiannon Fionn, an independent journalist and filmmaker who has covered coal ash since 2009. "That's the biggest thing about the EPA regulation, it's leaving so much on the shoulders of the people."

North Carolina resident Amy Brown lives near a Duke Energy coal ash impoundment and lives with elevated levels of heavy metals in her well water. "Unless you have to fight for protection, you have no clue that you even need to fight for protection, because you assume that the government is doing their job to make sure that everything is taken care of in an appropriate way," says Brown.

### Responding to the Mess

Appalachian states have relied heavily on coal as a source of energy. As a result, they now have a legacy of coal ash that threatens to burst free of aging dams or to leach toxins into surrounding water sources. And in most states, the volume of coal ash continues to grow by millions of tons each year.

The regulations passed by the EPA in 2014 provided guidelines for how states could address this problem. While some states have taken actions toward cleanup, no Appalachian states have adopted the EPA regulations. Instead states have taken varied approaches toward regulating cleanup.

### The Carolinas

Perhaps nowhere is the contrast between cleanup efforts more stark than

*continued on next page*



Barbara Morales of Belmont, N.C., speaks about coal ash cleanup at a public hearing. Photo by Appalachian Voices

### Cleaning up a mess

*continued from previous page*

in North and South Carolina.

Under pressure from the Southern Environmental Law Center and other advocacy groups, the three main utilities in South Carolina have committed to cleaning up their coal ash. As of 2015, the utilities have pledged to excavate approximately 20 million tons of ash, removing all impoundments located along waterways to dry, lined storage, according to the Southern Alliance for Clean Energy.

South Carolina is the first state in the Southeast to commit to full excavation of its coal ash impoundments. North Carolina has taken a different path.

"What happened in North Carolina — which did not happen in South Carolina — is the state agency tried to block and obstruct the enforcement of clean water laws by us and local conservation groups," says Frank Holleman, a senior attorney at the Southern Environmental Law Center who has worked on coal ash issues in both states. Appalachian Voices, the publisher of this newspaper, is

among the groups advocating for stronger coal ash cleanup rules in the state.

Following the Dan River spill in 2014, the N.C. General Assembly passed the Coal Ash Management Act, which established guidelines for cleaning up the state's coal ash that were more rigorous than regulations passed later that year by the EPA.

The law also created a commission to oversee the process, which was disbanded by Gov. Pat McCrory in March of this year.

In accordance with the 2014 law, the state's Department of Environmental Quality determined timelines and levels of cleanup for each impoundment across the state by classifying each as either low, intermediate or high priority. But in July of this year, the governor passed legislation that overturned these rankings and reduced Duke's cleanup responsibility.

While the new law requires provision of water to residents near impoundments who have not been drinking their water for over a year because of elevated levels of heavy metals, it also delays the deadlines for cleanup and requires the DEQ

to classify intermediate-risk ponds as low risk if Duke Energy takes measures to fix leaking dams and provides water.

The bill also allows low-risk sites to be closed according to the EPA's federal coal ash rule, which is less stringent than North Carolina's original requirements.

### Tennessee, Alabama and Georgia

In Tennessee, cleanup of the 2008 Kingston spill has progressed, but the Tennessee Valley Authority has made no plan to remove impoundments statewide.

Instead, TVA released a report in December 2015 outlining its intention to cap-in-



Annette and William Gibbs live in Perry County, Ala., near a landfill that now contains four million tons of coal ash from the 2008 Kingston spill. Photo by Chris Jordan-Bloch / Earthjustice

place. Citizen and environmental groups have challenged this decision. According to the Southern Environmental Law Center, the drinking water of three million people is downstream of TVA's unlined, leaking coal ash impoundments in both Tennessee and Alabama.

"TVA should do the right thing, as other utilities are doing, clean up these polluting ash ponds and remove the toxic contents to secure, lined, dry storage facilities away from our waterways," Charles Rose, president of the Alabama-based Shoal Environmental Alliance, told the TimesDaily in June.

Alabama Power and Georgia Power, subsidiaries of Southern Company serving their respective states, have both announced that they will close their coal ash ponds. Alabama Power hasn't released a timetable for closure or details on how the ash will be handled, but Georgia Power has released a plan to excavate 19 sites and cap 13 in place over the next 14 years, according to The Atlanta Journal Constitution.

As part of the cleanup of the 2008 disaster in Kingston, Tenn., four million tons of coal ash were shipped to the Arrowhead Landfill in Uniontown, Ala.

Dozens of workers who cleaned up the spill have filed lawsuits against the contractor claiming that they were told

the ash was safe, were not given proper protection and are now suffering health consequences, according to the Center For Public Integrity.

In April of this year, owners of the Uniontown landfill brought a \$30 million suit for libel against four local residents, and also sued two of the four for defamation. The residents, members of grassroots group Black Belt Citizens Fighting for Health and Justice, had spoken out about environmental and health risks associated with the landfill's coal ash.

### Virginia, West Virginia and Kentucky

Coal ash disposal in Virginia is making national news this summer, as the commonwealth hosts the first federal-level court case to address one utility's violation of the Clean Water Act. Testimony ended in June in the Sierra Club and Southern Environmental Law Center's suit alleging that arsenic leaching from impoundments at Dominion Virginia Power's retired Chesapeake Energy Center had contaminated surrounding water.

ABC News reports that the ruling "could have far-reaching effects on how energy companies dispose of coal ash waste left over from decades

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## Southeastern Coal Ash By the Numbers

### AL

**Coal ash generated annually:** 3.2 million tons  
**Cleanup plans:** Utilities favor cap-in-place.  
**State Fact:** Residents are being sued for libel for speaking out against nearby coal ash.

### GA

**Coal ash generated annually:** 6.1 million tons  
**Cleanup plans:** Utilities favor cap-in-place.  
**State Fact:** Only 7 percent of Georgia's coal ash dams have been inspected by the state in the past five years.

### KY

**Coal ash generated annually:** 9 million tons  
**Cleanup plans:** Utilities favor cap-in-place, and legislation mirroring the EPA's is being drafted.  
**State Fact:** Doesn't require groundwater monitoring or emergency action planning at all sites.

### NC

**Coal ash generated annually:** 5.5 million tons  
**Cleanup plans:** If Duke Energy provides water to residents and fixes dam problems, it can follow EPA guidelines instead of previous state requirements.  
**State fact:** A new law overturns the state's previous, stricter coal ash law.

### OH

**Coal ash generated annually:** 10 million tons  
**Cleanup plans:** Utilities haven't announced plans.  
**State fact:** In 2002, a utility bought a town near their coal plant for \$20 million to gain future amnesty.

### PA

**Coal ash generated annually:** 15.4 million tons  
**Cleanup plans:** Unknown.  
**State fact:** Home to the largest coal ash impoundment in the U.S.

### SC

**Coal ash generated annually:** 2.2 million tons  
**Cleanup plans:** All coal ash near waterways is being excavated and moved to lined storage.  
**State fact:** First state in Southeast to commit to full excavation.

### TN

**Coal ash generated annually:** 3.2 million tons  
**Cleanup plans:** Utilities favor cap-in-place.  
**State fact:** The 2008 Kingston spill is the largest coal ash

### VA

**Coal ash generated annually:** 2.4 million tons  
**Cleanup plans:** Utilities favor cap-in-place.  
**State fact:** Home to the only unlined impoundment along the southeastern coast without a plan for excavation.

### WV

**Coal ash generated annually:** 7.2 million tons  
**Cleanup plans:** The state's solid waste rule applies only to coal ash impoundments built after May 1, 1990.  
**State fact:** Many of the state's coal ash ponds were built before May 1, 1990.

Sources: Facing South, Earthjustice, The Atlantic, Southern Environmental Law Center

## Cleaning up a mess

continued from previous page

of burning coal.”

Dominion’s plan for cleaning up the coal ash in Virginia relies heavily on discharging the water into surrounding waterways and then capping the impoundments in place.

West Virginia has not adopted the EPA standards and regulates coal ash disposal based on the state’s Solid Waste Management Rule. This rule exempts coal ash impoundments built before May 1, 1990, from following all requirements except for groundwater monitoring. According to Earthjustice, at least 12 of the impoundments in the were built before 1990.

In Kentucky, utilities are increasingly using dry storage for newly produced coal ash, but opting to cap-in-place many existing impoundments. Seven dams across the state are rated high hazard according to Earthjustice, meaning failure could result in the loss of human life. The state is drafting legislation that enforces the EPA

rule, but doesn’t require emergency response plans.

### Pennsylvania and Ohio

The nation’s largest coal ash containment pond is primarily in Pennsylvania and also encroaches into Ohio and West Virginia. The forty-year-old impoundment at Little Blue Run stores ash produced by FirstEnergy Corp.’s Bruce Mansfield Power Plant. The 1,700-acre site has been used to dispose of more than 20 billion gallons of coal ash waste.

Three years ago, the Pennsylvania Department of Environmental Protection ordered the site to be enclosed and stop receiving new coal ash by the end of 2016.

The closure of Little Blue Run will require cleanup of that site and a new plan for disposal of coal ash produced in the future. One plan being considered is to ship the coal ash to LaBelle, Penn., and use it to fill an abandoned coal mine.

The EPA considers this form of disposal a “beneficial use” and does not regulate it. The U.S. Department of the Interior has the authority to set stan-



The Buck Steam Station coal ash impoundment in North Carolina. Photo © Les Stone / Greenpeace

dards but has yet to compile regulations.

Residents of LaBelle are fighting to prevent the coal ash from coming to their community.

In July, FirstEnergy announced plans to close five of its Ohio coal-fired plants by 2020. The state has retired more coal-fired capacity since 2010 than any other state, according to Earthjustice.

But the pace of coal ash cleanup is lagging behind. “Ohio is one of the largest coal ash producers in the country, and they have some of the worst state regulations,” Lisa Evans, senior administrative counsel at Earthjustice, told WCPO News in June.

### People Impacted by the Mess

As states delay cleanup efforts and lawsuits are challenged in court, coal ash continues to disproportionately affect low income and minority communities. Almost 70 percent of coal ash ponds are in areas with household incomes below the national median, Evans testified before the U.S. House of Representatives Subcommittee on Energy and the Environment in 2013.

“Self-implementing rules rely on citizen enforcement,” Evans says. “Citizen enforcement relies on resources. So the communities that are worst off when there’s a self-implementing rule are those communities that cannot afford to monitor compliance and cannot afford legal representation when non-compliance is discovered.”

“These citizens who already feel

so isolated because they are poor, feel even more isolated when they are following the protocol, making the complaints and not seeing any relief,” says filmmaker Rhiannon Fionn.

Communities throughout Appalachia experience coal ash and its toxic effects in different ways. For some, like the citizens in Uniontown, Ala., their problems began when ash and its putrid smell was relocated to their area, despite residents’ objections.

For others, like Kentucky residents whose drinking water comes from the Ohio River, contaminants have been seeping into their communities’ water supplies for decades through Louisville Gas and Electric’s permitted but unmonitored discharge pipe. Still others, like prisoners at the Pennsylvania State Correctional Institute, saw elevated numbers of cancer cases and deaths linked to coal ash blowing onto prison grounds from a nearby impoundment, according to Scientific American.

Coal ash is impacting communities across the southeast in different ways. But from state to state, residents bear the responsibility of leading the fight for cleanup.

“I’m just like any other mother, I drive my kids to practice and have sports equipment in my minivan. The only difference is that I have to fight to protect my children from our water,” says Amy Brown. “Sitting down on the couch and relying on the state, expecting they will do the right thing, isn’t an option anymore. No one will fight for my children the way I will.” ♦

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### From the Archives - An Unforgettable Lesson, Forgotten



Regional coverage of coal ash also appears in our Feb./March 2014 issue. That issue went to press less than an hour before news broke of the Dan River spill. Read this story and more at [appvoices.org/voice20](http://appvoices.org/voice20)

# Appalachia’s Political Landscape

## Voter Turnout in the Mountains

With the White House, Appalachian congressional seats and some governorships up for grabs, votes cast this election cycle will impact the region for years to come. But will mountain voters go to the polls?

By Dan Radmacher

If history is a guide, voter turnout in Appalachia for the November election will be significantly lower than most of the rest of the nation. Lower turnout for presidential elections has been a consistent pattern in Appalachia, dating at least back to the 2004 election, according to scholars.

Turnout in Appalachia for the 2012 election — measured as a percentage of the voting-age population that cast ballots for president — was 55 percent, compared to 60.5 percent in the rest of the nation, according to an analysis by Geoffrey Skelley, associate editor of Sabato’s Crystal Ball at the University of Virginia’s Center for Politics.

These results echo Appalachian turnout in previous presidential elections.

David Sutton, former director of the Center for Appalachian Studies at Appalachian State University, studied turnout in the 2004 and 2008 presidential elections. In articles for Appalachian Journal, he cited significant turnout differences between counties in Appalachia and counties outside the region.

In 2004, 14 Appalachian counties in Kentucky had turnout at least 10 percentage points below the state average. Eight of the 10 counties with the lowest turnout in Ohio were in Appalachia. In Virginia, turnout in the 9th Congressional District was more than four points lower than the statewide average.

In 2008, West Virginia, the only state entirely within the boundaries of Appalachia, tied Hawaii for the lowest turnout rate at 50.6 percent. Many Kentucky coal counties had turnout below 50 percent.

In a 2012 pre-election blog post, Dustin Cable, then with the University of Virginia’s Weldon Cooper Center for Public Research, wrote, “The lowest turnout regions of the country in 2008 were in Appalachia and parts of the South, regions with fewer people with college degrees and higher than average poverty rates.”

While voter turnout rates seem definitely correlated with both income and education, the factors that drive that correlation are complex, says Michael McDonald, associate professor of political science at the University of Florida and creator of the United States Election Project blog.

“It’s very clear that the more educated you are, the higher your turnout,” McDonald says. “The disagreement is about the causation. It could be that more participatory people seek out more information.”

Paul Martin, assistant professor at University of Virginia’s Frank Batten School of Leadership and Public Policy, agrees the causes aren’t clear-cut.

“There is a cyclical process where, by the virtue of the fact that politicians aren’t putting issues on the table that appeal to lower-income voters, it becomes hard to convince them that their

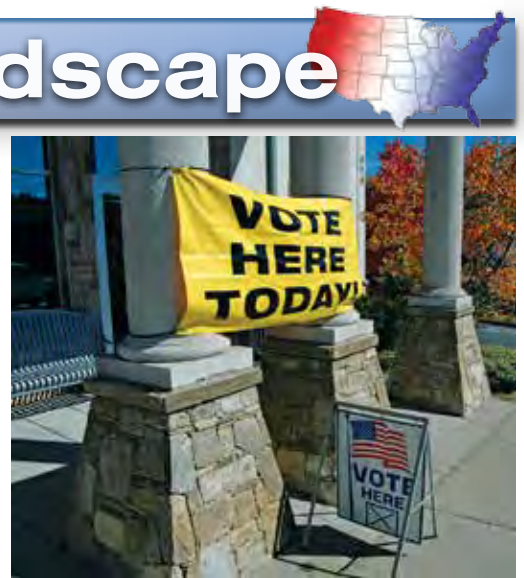
vote matters,” Martin says. “At the same time, the only way to get politicians to pay attention to you is to have high turnout.”

When parties and politicians make an effort to boost turnout in an area, it boosts voter participation, according to Martin. “But they also focus on the people they think will come out. Parties are strategic and don’t want to throw away limited resources on folks who are unlikely to vote.”

Campaigns use data to decide who to contact, Martin says. “It’s one of those awful chicken-and-egg situations. If parties acted differently, it might cultivate more participation. Voters might change their minds about what’s in their best interest.”

Voting is a habitual behavior, Martin says. Once someone starts, they are likely to keep voting. Because of that, age is a stronger predictor of voting than income. “People participate because they think they’re wanted,” he says. “If they’ve been neglected or left behind, it becomes difficult to convince folks their voices matter.”

Roy Silver, a professor of sociology at Southeast Kentucky Community and Technical College, agrees that Appalachians may not see the value of voting. “Part of it is that people don’t see these politicians and their platforms addressing their basic needs,” he says. “The influence of money in politics also inhibits greater participation. It creates cynicism



New voting restrictions for the 2016 election are in place in 17 states, including Georgia, North Carolina, Ohio, South Carolina, Tennessee and Virginia. Photo by Jesse Wood, courtesy High Country Press

and reinforces the notion that we have a plutocracy and that the system is rigged.”

Short of convincing parties and candidates that Appalachian areas are worthwhile investments for get-out-the-vote efforts, there are some voting reforms that might help raise turnout rates, McDonald and Silver say. “What you really need is something like election-day registration,” McDonald says. “If you were looking for a reform that would do the most good, automatic registration, with an opt-out for those who don’t want to register, would probably have a lot of effect.”

Voting needs to be more accessible, Silver says. “Our polls in Kentucky are open from 6 a.m. to 6 p.m. That inhibits people who work from getting to the polls, particularly for those who work in the mines. Making all the voting places more accessible, making registration more streamlined — these would all help.”

For voter registration and polling place information, visit [canivote.org](http://canivote.org). ♦

114 <sup>TH</sup> CONGRESS:	Kentucky		Tennessee		North Carolina		Virginia		West Virginia							
HOUSE	T. Massie (R) KY-04	H. Rogers (R) KY-05	A. Barr (R) KY-06	P. Roe (R) TN-01	J. Duncan (R) TN-02	F. Fleischman (R) TN-03	S. Desjarlais (R) TN-04	V. Foxx (R) NC-05	P. McHenry (R) NC-10	M. Meadows (R) NC-11	R. Hurt (R) VA-05	B. Goodlatte (R) VA-06	M. Griffith (R) VA-09	D. McKinley (R) WV-01	A. Mooney (R) WV-02	E. Jenkins (R) WV-03
<b>H. Amendment 1288</b> to H.R. 5538, the Dept. of Interior, Environment and Related Agencies Appropriations Act, would strike a portion of the bill that blocks implementation of the Stream Protection Rule, an upcoming regulation intended to mitigate surface water pollution from coal mining. <b>190 AYES 235 NOES 8 NV FAILED</b>	X	X	X	X	X	X	X	○	X	X	X	X	X	X	X	X
<b>H. Amendment 1304</b> to H.R. 5538, the Dept. of Interior, Environment and Related Agencies Appropriations Act, would strike a portion of the bill that prohibits the EPA from requiring that industries that handle hazardous substances set aside funds to clean up toxic spills. <b>190 AYES 237 NOES 7 NV FAILED</b>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## Courts Could Determine Obama's Environmental Legacy

By Brian Sewell

With just months remaining in the Obama presidency, the clock is ticking on major rulemakings by the administration aimed at safeguarding the environment and public health and combating climate change. As the next election nears, several regulations are either yet to be finalized or tied up in federal court.

In February, the U.S. Supreme Court hit pause on the Clean Power Plan, slowing the momentum of efforts to regulate carbon pollution from power plants and sending a disruptive signal to the states, many of which put planning for the rule's implementation on hold.

The D.C. Circuit Court of Appeals will hear arguments on the plan in September, meaning a decision will come after the election. And, if the seat on the Supreme Court left open by the late Antonin Scalia remains vacant, the D.C. Circuit's ruling could be decisive.

But while the Clean Power Plan continues to be a flashpoint, the lesser known Mercury and Air Toxics Standards have had a larger impact on U.S. coal-based electricity generation, the nation's largest source of mercury emissions. The regulations were a major factor in the record-setting number of coal plant retirements in 2015.

In June, the Supreme Court allowed the mercury standards to stay in effect while the U.S. Environmental Protection Agency considers changes necessary to comply with a 2015 ruling by the high

## Gov. McAuliffe Forms Working Group to Cut Carbon Emissions

Virginia Gov. Terry McAuliffe issued an executive order in June directing state officials to form a working group to recommend ways the commonwealth can reduce carbon pollution from the electric sector.

Coming five months after the U.S. Supreme Court stayed the Clean Power Plan, the move represents the latest in a back-and-forth battle between McAuliffe and the state General Assembly over how to respond to the federal carbon limits.

The order was widely seen as an at-

court that the agency did not properly consider the regulations' cost to industry.

The coal industry and its supporters in Congress are also primed to fight the yet-to-be-finalized Stream Protection Rule. Years in the making, the rule is designed to reduce the impacts of surface coal mining. It has drawn the scorn of pro-coal policymakers and industry leaders including Murray Energy CEO Robert Murray, who pledged to sue the Obama administration the day the rule is filed.

The outlook is slightly better for the oil and gas industry, which celebrated in June after a federal judge invalidated rules to strengthen oversight of fracking on publicly owned land. The White House vowed to appeal the decision. In May, the Obama administration announced regulations to limit methane emissions from oil and gas operations, which prompted North Dakota to sue.

In the final months of his second term, President Obama continues to push back against efforts by Congress to undo proposed and finalized regulations. In July, he pledged to veto a spending bill passed by the House that would block the Clean Power Plan, the Stream Protection Rule and new regulations on fracking.

Partially as a result of that deadlock, court decisions made in the coming months could be the largest determining factor in the outcomes of the president's vaunted environmental efforts — perhaps second only to the winner of the White House in November.

tempt by the McAuliffe administration to circumvent the General Assembly. Republican lawmakers stripped the administration's ability to craft a state compliance plan in the spring by inserting a line into the budget that prevents the Virginia Department of Environmental Quality from using any funds "to prepare or submit" a state plan.

The order calls on the Secretary of Natural Resources to provide a report on the department's recommendations to the governor before June 2017. — *Brian Sewell*

## Mountaintop Removal Coal Mining in West Virginia

Two mines proposed, one denied, another faces pollution lawsuit

By Eliza Laubach and Willie Dodson

Alpha Natural Resources, a coal company in the process of emerging from bankruptcy, has applied for two new mountaintop removal mine permits on Coal River Mountain in West Virginia. If permitted, the two mines would destroy 1,589 acres above the Rock Creek and Arnett communities.

Coal River Mountain Watch, a local advocacy organization, is petitioning the West Virginia Department of Environmental Protection to deny one of the permits due to the community's concerns about pollution and the effect on the local economy, roads and ecology. The other permit is not yet advertised for comment, according to the group's website.

In the two years since the WVDEP approved a mountaintop removal permit for Keystone Industries' KD No. 2 surface mine, the agency has issued 40 enforcement actions on the mine. In March, the agency brought a lawsuit against the Florida-based company over a series of Clean Water Act violations at the controversial mine. The 413-acre

## Alpha Natural Resources to Exit Bankruptcy

After months of fierce opposition and rocky negotiations, Alpha Natural Resources won approval from a federal judge to emerge from bankruptcy.

Alpha's plan to exit bankruptcy hinges on the successful transfer of its core coal assets, including mining complexes in Virginia, West Virginia and Pennsylvania, to a new company formed by its top lenders. In exchange, the lenders will forgive Alpha's debt. The new company,

mountaintop removal mine in southern Kanawha County, W.Va., was met with opposition by local residents and others concerned about the project's impacts on nearby communities and on Kanawha State Forest, which borders the mine.

These actions were prompted by citizen oversight led by the Kanawha Forest Coalition, a grassroots watchdog group, which has conducted water monitoring at the site since shortly after the mine began operating. The company's quarterly pollution reports support the claim that mine runoff violated the permit granted to Keystone Industries under the Clean Water Act.

A 15-year long permit battle over the Spruce No. 1 mine, a proposed 2,000-acre mountaintop removal site in Logan County, W.Va, saw decisive action in July. The U.S. Court of Appeals for the District of Columbia upheld the Environmental Protection Agency's 2011 decision to block the mine's permit due to the "unacceptable adverse effect" it would have on the environment.

Contura Energy, Inc., has pledged to cover the full cost of reclamation at the sites it will acquire and put up to \$100 million toward the reclamation of mines that the reorganized Alpha will continue to own.

The plan's approval was also contingent on several agreements between Alpha, the United Mine Workers of America, state and federal regulators and environmental groups. — *Brian Sewell*

## Reform of Federal Coal Leases

Nearly 40 percent of coal produced in the United States came from leased public land in 2015, and a June White House review highlights the need to reform the federal coal leasing program.

President Obama's Council on Economic Advisers wrote that the delivered market price of coal and its external environmental costs are not taken into account when establishing the cost to lease federal land to coal companies. A fair market price would "ensure a fair return to the taxpayer." The report notes that this would decrease production, thereby

reducing carbon emissions. The report is part of a three-year comprehensive review of the program.

Environmental group WildEarth Guardians also filed a complaint with the Office of Surface Mining, Reclamation and Enforcement asking to reform self-bonding, a practice that allows coal companies to serve as their own guarantors for some reclamation costs. The comment period on the petition and suggested rule changes closed in July.

— *Eliza Laubach*

## Groups Face High Price if They Lose Appeal of Duke Energy Gas Plant

Two North Carolina nonprofit organizations concerned with climate change face a significant obstacle in their challenge to a new natural-gas-fired power plant near Asheville.

In March, the Public Utilities Commission approved Duke Energy's \$1 billion plan to build two 280-megawatt natural gas units. The Climate Times, based in Boone, N.C., and NC WARN, which is committed to watchdogging Duke Energy, argue that the power plant was fast-tracked without proper consideration of environmental impacts and the future economics of natural gas.

State law requires that the costs of delaying construction during the appeal

process be covered by a bond, paid by the objectors if they lose.

The North Carolina Public Utilities Commission raised the bond on the two groups' permit appeal from \$10 million to \$98 million in July, effectively barring their legal challenge. Duke Energy suggested \$240 million, their estimated cost of delaying construction, after the groups appealed the first set amount. The organizations also plan to appeal the latest bond amount. — *Eliza Laubach*

## Federal Support for Clean Energy Financing

A June ruling from the Federal Electric Regulatory Commission affirmed the right of rural electric cooperatives and municipal utilities to buy cost-competitive power from independent generators instead of conventional utilities. This bolsters the prospects of decentralized energy production — often solar power — in rural areas, says Utility Dive.

The U.S. Department of Agriculture has made available a new low-cost energy efficiency financing program. The Rural Energy Savings Program provides funding to rural electric cooperatives to back loans to electric co-op members for weatherization upgrades. — *Eliza Laubach*

## New Pollution Controls for Virginia Natural Gas Plant

The Virginia Department of Environmental Quality imposed precedent-setting protections against air pollutants by requiring that Dominion Power employ the best available control technology in its proposed gas-fired power plant in Greensville County, Va. The move comes in response to extensive comments from citizens and organizations such as Appalachian Mountain Advocates, Appalachian Voices and the Virginia Chapter of the Sierra Club. The department also decreased allowable carbon dioxide emission limits by more than 10 percent compared to the original proposal, according to a press release from the organizations. — *Hannah Petersen*

## Renewable Energy Growing

Renewable energy sources supplied an estimated 23.7 percent of the world's electricity in 2015, and that number is expected to rise as better funding enters the competitive market, according to a report from the Renewable Energy Policy Network for the 21st Century.

The world added more renewable power capacity than fossil fuel capacity in 2015. Hydroelectric power added a trillion watts, wind added 63 billion watts and solar added 50 billion watts. — *Otto Solberg*

## Mine Drainage Emits Higher Level of Carbon Dioxide

More carbon dioxide is being released from coal mine drainage than expected.

In June, a West Virginia University study found that 140 coal mines across Pennsylvania are collectively releasing carbon dioxide equal to that of a small power plant. The greenhouse gas is released into the atmosphere when mine waters reach the land's surface, a WVU press release explains.

Using a meter designed for measuring carbon dioxide in beverages, the research team discovered there is more carbon dioxide in the water than was measured using previous testing methods.

Coal mine drainage contaminates drinking water, disrupts ecosystems and releases carbon dioxide into the atmosphere, according to the university. — *Otto Solberg*

## Pipeline Would Cross Hazardous Landscape

If constructed as proposed, the Mountain Valley Pipeline would encounter many geologic hazards as it carries natural gas from wellheads in West Virginia to Virginia, according to a recent study commissioned by Protect Our Water, Heritage, Rights (The POWHR Coalition). Because of its weak soil structure, the possibility of surface collapse and potential for seismic activity, the karst landscape along the West Virginia-Virginia state line makes this area a "no-build" zone for the project," according to Dr. Ernst H. Kastning, the study's author.

Karst topography is formed when soluble rock layers such as limestone are dissolved, leaving behind underground caves and sinkholes. — *Elizabeth E. Payne*

## West Virginia County Denied Regulation of Frack Wastewater, Regional Problem Unveiled

By Eliza Laubach

A federal judge recently invalidated an ordinance concerning hydraulic fracturing, or fracking, passed in West Virginia last January. The Fayette County Commission's ordinance banned fracking wastewater from being stored, disposed of or used in the county, except for temporary on-site storage.

The commission argued that county officials are allowed to protect residents' health and welfare, but Judge Copenhaven ruled that the state has greater authority to manage fracking wastewater. The decision also served as a summary judgment on a lawsuit EQT Production Company filed against the commission regarding the ban and came just before a hearing was set to be held on the case. The commission plans to appeal the decision, according to The Register-Herald.

Frack wastewater contains endocrine disruptors, which are linked to birth defects and certain cancers.

## \$30 Million for Pennsylvania Abandoned Mine Projects

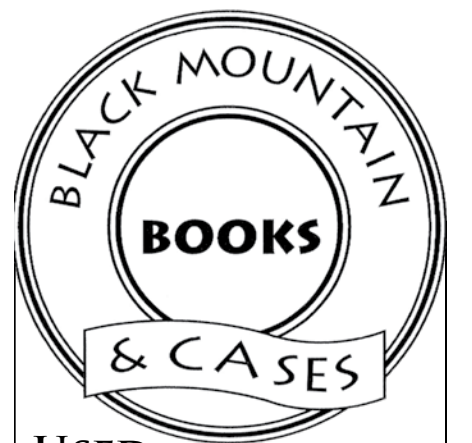
In July, Pennsylvania Gov. Tom Wolf awarded \$30 million for 14 projects to reclaim abandoned mine lands that were selected based on their potential to create long-term economic benefits. Funding for the projects comes from a federal pilot program passed by Congress in December. The program is structured similar to the RECLAIM Act, bipartisan legislation that, if passed, would distribute \$1 billion over five years to support land restoration and economic development in communities across the country impacted by the coal industry's decline. — *Brian Sewell*

## Coal Production Drops

The first quarter of 2016 saw the lowest level of coal produced since 1981 and the largest quarter-over-quarter decline in coal production since 1984, according to the U.S. Energy Information Administration. The EIA report shows that weaker demand due to above-normal winter temperatures, alongside complying with environmental regulations and competing with renewables and natural gas, have caused production to decline. — *Hannah Petersen*

Researchers found these chemicals in a Fayette County creek near a storage site owned by a construction company that also sued the commission, according to The Register-Herald.

A June report by The Center for Public Integrity reveals that within the Marcellus Shale gas-drilling region, states have inconsistently regulated the industry's by-products, which also include sludge, rock and soiled equipment. For instance, the report found intrastate transportation of radioactive sludge to landfills without much oversight. In May, environmental and community groups filed suit against the U.S. Environmental Protection Agency seeking stronger regulations for frack waste.

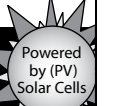


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### Norton's Walk Along the River

In the Southwest Virginia city of Norton, Appalachian Voices is supporting a project that would enhance recreation along the Guest River and clean up an abandoned coal tipple that is both an eyesore and a source of pollution.

In 2008, Norton city officials began to contemplate using their new sewer main right of way for a two-mile multi-use path connecting the downtown with the community of Ramsey. The proposed Riverwalk presented a unique opportunity to encourage Norton residents of all abilities to recreate along the scenic Guest River and to improve pedestrian connectivity.

Groundwork for the Norton Riverwalk project was laid by the City of Norton's 2010 feasibility study, environmental research from the University

of Virginia's College at Wise and a 2011 conceptual design for an adjacent coal tipple reclamation project completed by Virginia Tech student Nathan Brown.

The rigorous community outreach process this summer is helping Norton city leaders to inform the public about the Riverwalk and allow area residents to have a substantial impact on the design, while it is still in its most flexible form. Dylan Reilly, master's student of landscape architecture at University of Maryland and riverwalk design assistant at Appalachian Voices, is orchestrating a community engagement process for the Norton Riverwalk during summer 2016 to result in a feasible, conceptual design.

In addition to meeting with local groups such as police, park officials and



Team 1 ponders design decisions during the July 7 Riverwalk Design Evening. Photo by Fred Ramey

public health advocates, a large community Design Evening was held on July 7. Participants were divided into three facilitated teams, each team tackling the same design challenge. Teams received three maps for Riverwalk Phase 1, icons of amenities, and sticky notes. The teams were tasked with determining where amenities like amphitheaters, restrooms and water fountains should go, using the sticky notes to explain their design reasoning and to propose ideas that the

icons could not encapsulate. The two-hour Design Evening was a smashing success with 30 participants and great design ideas. The results of the community engagement process and the conceptual plan will be presented to the Norton City Council on Aug. 16.

Project partners are seeking grant funding for the remediation, design and construction of the Norton Riverwalk. A Clean Water Act settlement is paying for an environmental assessment of the site. Appalachian Voices, Southern Appalachian Mountain Stewards and the Sierra Club were recently plaintiffs in a Clean Water Act lawsuit that resulted in the defendant paying \$35,000 for a Supplemental Environmental Project to complete the environmental assessment of the coal tipple site along the proposed Riverwalk. This assessment will be completed by the end of the year, opening the door for the project to continue. ♦

### Virginians March for Climate Justice

Despite record-breaking heat — or maybe, in part, because of it — more than 600 people turned out for a "March on the Mansion" in Richmond on July 23. Their aim was to tell Gov. Terry McAuliffe to stand against fossil-fuel polluters and stand with people who are fighting fracked-gas pipelines, toxic coal ash and climate change.



Virginians marched in Richmond to urge Gov. McAuliffe to stand against the fossil fuel industry. Photos courtesy of Chesapeake Climate Action Network

The first-of-its-kind climate justice rally in Virginia brought together people from Norfolk to Northern Virginia to the New River Valley who are directly impacted by dirty energy policies that Gov. McAuliffe supports. Farmers whose land is threatened by the proposed Atlantic Coast and Mountain Valley pipelines marched shoulder-to-shoulder with Virginians whose drinking water is polluted by coal ash or whose homes are being flooded by rising seas.

Appalachian Voices was a lead organizer, along with Chesapeake Climate Action Network, Virginia Organizing and Virginia Student Environmental Coalition.

The march follows an open letter to the governor from 60 landowner, faith-based, student, social justice and conservation groups last month that laid out a vision for affordable clean-energy development that matches the scale of the climate crisis, gives local communities a voice and advances social, racial and environmental justice. ♦

Stay informed! Sign up for news and action alerts at [appvoices.org/stay-in-touch](http://appvoices.org/stay-in-touch)

### Spurring Civic Involvement for Clean Water, Mine Reclamation

If you're on our email list, you know that in late July, several federal agencies held public comment periods regarding critical clean water and coal mining issues. Appalachian Voices submitted comments and called on mountain lovers to add their voices.

We urged the Department of the Interior to end the practice of self-bonding, which allows some coal companies to act as their own guarantor for the costs of mine reclamation instead of posting a bond or purchasing insurance. Taxpayers shouldn't be on the hook to clean up abandoned mines if a self-bonded company goes bankrupt.

We also submitted comments in support of the EPA's proposed updates to the permits

that regulate water pollution from coal mines and power plants. Among other provisions, the changes would allow the EPA to step in when states fail to re-issue updated permits.

The Army Corps of Engineers is also renewing the nationwide permit that allows coal mining fill to be put in public waterways. This blanket permit applies to many mines across the country. We urged the Corps to strengthen the permit to better protect rivers and streams from destructive surface coal mining.

These comment periods are now closed, but to receive future email action alerts, sign up at [appvoices.org/stay-in-touch](http://appvoices.org/stay-in-touch) ♦

### Welcome Lara, Farewell to Hannah and Tarence

We welcome Shenandoah Valley resident Lara Mack to the Appalachian Voices team, where she will work toward a clean energy future in Virginia. Lara brings a passion for group facilitation and community organizing to her new position as Virginia Field Organizer in our Charlottesville office. An advocate for environmental and social justice issues for a decade, she considers herself and this work part of the legacy of building power in our communities and fighting oppression in our culture.

Lara is helping to fill the shoes of Hannah Wiegard, who shared her enthusiasm with Appalachian Voices as our Virginia Campaign Coordinator for two and a half years. Hannah campaigned for just policies for solar energy, supported community groups fighting natural gas pipelines and rallied ratepayers to speak out for clean energy and climate justice. She is dedicated to volunteering with environmental organizations in her new home in Charlotte, N.C.

We also bid farewell to former Central Appalachian Field Coordinator Tarence Ray. Tarence brought a passion for environmental justice to his work with community members impacted by extractive industries. We wish him well in his new role as Development Director for Appalachian Citizens Law Center in Whitesburg, Ky. ♦



Lara Mack



Hannah Wiegard



Tarence Ray



### Member Spotlight Teri Crawford Brown Conservation Starts at Home

By Otto Solberg

Teri Crawford Brown was born and raised in Jewel Ridge, Va., and as a child never went off the mountain unless it was for a special family trip to Dairy Queen. Teri now lives in Richlands, Va., in a century-old church that she has been sustainably renovating with her husband. To her, the mountains of Virginia have always been home, and a home she wants to protect.

Three years ago, while visiting Knoxville, Tenn., Teri picked up a copy of *The Appalachian Voice* and couldn't put it down.

"I loved everything about it," she says, "Like trying to grow a new economy and not be dependent on coal, and making our representatives accountable for their decisions."

After noticing that the papers were distributed by volunteers, Teri began distributing copies across the town of Richlands, Va., including at the hospital where she has been a nurse for 23 years.

"I went through this period of time just trying to find what my purpose was," Teri says. "I came to the realization — your purpose is always serving other people."

During her evening walks, Teri carries a stick and bag to pick up trash.

"We would go walking or hiking and there would be trash out in the woods, and that always just bothered me that it felt like a bigger problem than I could fix."

Aware that trash doesn't just go away, Teri and her husband Richard are repurposing as much as they can while renovating a secluded 126-year-old



Photo by Paul David Crawford

church into their home.

They bought Davis Chapel in Richlands, Va., from their good friends Mike Smith and Barbette Patton, who had saved the church from development.

Teri and Richard raised their three sons in a 3,000-square-foot home in a subdivision, and Teri

felt like she was working all the time to clean, heat and pay for it, so she wanted to go smaller. Moving into the one-room church downsized them to 1,100 square feet of living space.

In their renovations, they used trusses from the old roof, balusters from the altar and light fixtures from the church. They refinished the original walls and floors and divided the church into rooms. In the bell tower, they built a home library, and Teri hand-sanded bookshelves from a nearby library for the floorboards.

"That's the thing I love the most about the church, and was so excited about, was the bell tower, and having a bookshelf and a big comfortable chair," she says. "So all of that has come true now."

Teri also hopes that her kids and grandkids can appreciate the Appa-



The church before Teri and her husband began renovations, at top. Below, the bell tower library, which Teri, a book-lover, worked on tirelessly. Photos by Teri Crawford Brown

lachian mountains the same way she has and wants to protect them from dangers like mountaintop removal coal mining. She can already see three strip mines from Bearwallow Mountain where she was raised.

Teri believes Appalachia is as beautiful as the Grand Canyon, yet, she says, "we don't appreciate it, and our children, our people, have been raised to dismiss it and allow it to be destroyed, and we can't get it back."

To inspire a cycle of positive change, Teri encourages others to work on small environmental issues that are important to them.

"We have to start these things small and let them grow in these very rural small areas," Teri says.

Teri blogs about her thoughts and minimalist church renovation at [gratefully.com](http://gratefully.com) ♦



Appalachian Voices is committed to protecting the land, air and water of the central and southern Appalachian region. Our mission is to empower people to defend our region's rich natural and cultural heritage by providing them with tools and strategies for successful grassroots campaigns.

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*“Hanging The Top” by James K. Fay was a finalist in the 13th annual Appalachian Mountain Photography Competition’s Culture category. This image shows a brief moment of rest during the annual hanging of tobacco for curing in the Rash family’s barn in Ashe County, N.C. The deadline to submit images for the 14th annual photography competition is November 18 at 5 p.m. Learn more at appmntphotocomp.org*

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