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& STILL
FREE

The Appalachian VOICE

December 2016/January 2017



Home on the Range

A look at the wild ponies
and horses of Appalachia

Also Inside: Following Cherokee Footpaths | Reclaiming Old Mines | Pipeline Pushback

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About the Cover



Photographer Elizabeth Wegmann first fell in love with the Grayson Highlands in Southwest Virginia while thru-hiking the Appalachian Trail in 1999 and began photographing the wild ponies in 2010. "I have loved horses forever," says Wegmann. "And to be able to find a place where I love to hike and can find wild ponies as well — it's my happy place." This photo of Fabio, perhaps the most well-known of the ponies, was taken at Massie Gap in March 2012. "Fabio is my muse," says Wegmann. To see more of her photos and to keep up with the ponies, follow and like her page at Facebook.com/graysonhighlandspories

What We Do Now: A note from the executive director

Last weekend, I was hiking with my three young kids. I witnessed their joy, watching them skitter up a rock above our favorite mountain creek, honing their balance. I admired their presence in the moment, seeing them examine trees, mushrooms and tiny creatures along the trail, chewing on birch twigs.

But it was difficult to share in that joy or presence. It's been hard to look at my kids or Appalachia's natural beauty without thinking about the presidential election and its implications for the future.

The most important question is how to respond on behalf of what we love.

I believe deeply in Appalachian Voices' longstanding mission to bring people together for the well-being of Appalachian communities, for environmental justice and for our children's futures. And we're not alone: commitment to the common good unites engaged citizens across America, including our allies and partners from many walks of life who bring a variety of experiences and worldviews.

The first reason we stand together is practical: it works. It's how we protect our mountains, air and water. It's how we create clean energy jobs and new economies. It's the way communities and societies have always accomplished great things. It's what gives justice a fighting chance.

And there's something deeper, too: we inspire each other when we work in common cause, transcending our inevitable differences and connecting with others. It affirms our brotherhood and sisterhood, we feel the boost to our energy and the depth of our power to make a difference.

In stark contrast, the presidential election has underscored and exaggerated our differences, overshadowing the many fundamental values we share. It's left many with a feeling that our country is tragically divided. To make matters worse, so much of what we have in common — including our desire for healthy families, clean air and water, and economies that support healthy communities — is in extreme jeopardy, judging by nearly every signal the president-elect has sent.

But I look at my kids and know being discouraged is not an option.

Instead, we must join together like never before. We'll need our collective strength to stand up for our communities' health, our democratic values and the future of the planet. And we cannot be relegated to a strictly defensive posture: we need to work hard together for clean energy and sustainable economies. We need to build on what we all have in common, bridging differences with others, including how they may have voted.

We know that it works. And it's never been more important to show what we can accomplish together. The world we leave our kids — and the example we set for them — both depend on what we do now.

For the mountains,

Tom

Tom Cormons, Executive Director



Tom's youngest kids on a recent hike in Virginia. Photo by Heather Cormons

GET INVOLVED environmental & cultural events

Christmas in Old Appalachia

Dec. 3 - 24: A snapshot of old Appalachian culture will be on display at the Museum of Appalachia, with the village decorated as if it were Christmas in the pioneer days. Admission ranges from \$6-\$18, children under 5 free. Clinton, Tenn. Call 865-494-7680 or visit museumofappalachia.org

117th Annual Audubon Christmas Bird Count

Dec. 14 - Jan. 5: Help the Audubon's conservation efforts by participating in the annual bird count. There are multiple locations hosting bird counts across the country. Free. Visit audubon.org/join-christmas-bird-count

Introduction to Falconry

Dec. 17, 7 p.m.: Come learn about the sport of falconry with master falconer Paul Fowler, Freya the red-tailed hawk and a barred owl. Free. Canaan Valley State Park, Davis, W.Va.

Call 800-622-4121 or visit canaanresort.com

Wonders of the Winter World Stroll

Dec. 17 - Jan. 1, 2-3 p.m.: Grandfather Mountain Stewardship Foundation hosts guided hikes on select days. Free with entry. Linville, N.C. Call 800-468-7325 or visit grandfather.com

Wild Virginia's Book Club

Jan. 4, 7 p.m.: Join Wild Virginia for a discussion of "Refuge: An Unnatural History of Family and Place" by Terry Tempest Williams. Free, but registration is required. Charlottesville, Va. Call 434-971-1553 or visit wildvirginia.org

Butterfly Gardening Seminar

Jan. 14, 10 a.m.: For this year's annual winter seminar, Kris Light will present on how to create a more attractive home for butterflies right in the garden. Free, pre-registration preferred. Warrior's Path State Park, Kingsport, Tenn. Call 423-239-6786 or email Marty.silver@tn.gov

See more at appvoices.org/calendar

Free National Park Entrance

Jan. 16 & Feb. 20: America's national parks will offer 10 days without entry fees in 2017. Free. To find a participating park near you, visit www.nps.gov

Southern Sustainable Agriculture Working Group Conference

Jan. 25 - 28: This annual gathering provides attendees with organic and sustainable farming skills and includes conference sessions, shows and field trips. \$40-260. Lexington, Ky. Call 479-251-8310 or visit www.ssawg.org

Great Backyard Bird Count

Feb. 17 - 20: During this annual bird watching event, individuals keep record of the birds that they see at their homes or at select parks to contribute to online bird counts. Free. Visit gbcc.birdcount.org

A Salute to Our Volunteer Distributors

For the past 20 years, a troop of more than 300 valiant Distribution Volunteers has helped us deliver The Appalachian Voice newspaper to our readers. This very issue would not be in your hands without our dependable and generous network, who live throughout The Voice's eight-state coverage area and provide the vehicle-power, local knowledge of hotspots, and valuable personal time to ensure we make it to the newsstands six times a year.

This list might be incomplete, and maybe by as much as a country mile. Our records only go back to 2004, and we may have unintentionally missed a few names along the way as well. But to each and every person and organization who has served as part of this valuable volunteer team throughout the years, we offer our deepest and most heartfelt gratitude for your dedication to helping our cause. You are the key to why we are still here.

* If you volunteered as a distributor and your name doesn't appear on this list, email voice@appvoices.org and we'll add you online!
** To view a complete list of businesses and locations where you can find The Voice, visit appvoices.org/thevoice/map



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New POWER Initiative Grants Aim to Bolster Coal-Impacted Economies

By Elizabeth E. Payne

On Oct. 26, the White House announced more grants to assist in economic development and job training in areas hardest hit by the decline of the coal industry. This round of POWER Initiative grants awarded nearly \$28 million dollars of support for 42 projects in 13 states.

The largest grant, for \$3 million, was awarded to Friends of Southwest Virginia for a project intended to increase ecotourism opportunities in a four-county area. Plans include building an Appalachian Trail Center in Damascus and creating a 30-mile multi-use trail from Breaks Interstate Park to Haysi, among other recreational improvements.

The Industrial Development Authority in Wise, Va., received \$2.22 million for the "Virginia Emerging Drone

Industry Cluster Project," which aims to attract the drone industry to five counties in Southwest Virginia.

West Virginia received funding for implementing, planning and researching various projects. The City of Bluefield received the state's largest award with a \$2.04 million grant for the "Bluefield Commercialization Station," a high-tech incubator for new and existing businesses.

Smaller POWER Planning Grants were also awarded to several other projects in the state, including a \$105,000 grant that would assess the viability of transforming a former "pill mill" in Williamson, W.Va., into a job training and substance abuse center.

Projects in Kentucky, North Carolina and Tennessee were also funded, as were numerous projects in Ohio, Pennsylvania and states outside Appalachia.

Appalachian Youth Discuss Just Economic Transition

On Nov. 20, the Kentucky Student Environmental Coalition and the Stay Together Appalachian Youth Project hosted the first Just Transition Youth Assembly at the Boone Youth Drop-In Center in Whitesburg, Ky. Approximately 20 individuals gathered to map local and regional resources in their

communities, learn about solutions already in motion and discuss solutions that would facilitate a sustainable, healthy future for all people in Appalachia. The assembly was the first in a series. Find the STAY Project and KSEC on Facebook for information about the next Just Transition forum. — Lou Murrey

Reroute of Appalachian Trail At Watauga Lake

The U.S. Forest Service and the Appalachian Trail Conservancy have acquired 20 acres near Watauga Lake in Tennessee and can now relocate a roughly one mile section of the Appalachian Trail near Hampton, Tenn.

The proposed reroute will allow the

Appalachian Trail to cross U.S. Highway 321 at a safer place.

In 2014, the Conservation Fund purchased the land and recently transferred it to the U.S. Forest Service and the Appalachian Trail Conservancy. — Tristin Van Ord

Devastating Forest Fires Ignite Southeast

By Tristin Van Ord

Numerous forest fires continue to burn across Southern and Central Appalachia due to dry weather conditions. According to USA Today, over 119,000 acres of forest have already burned throughout the region this fall.

Alabama, Georgia, South Carolina, North Carolina, Tennessee, Kentucky, Virginia and West Virginia have all been affected.

At least 300 homes and business were damaged or destroyed after wildfires tore through the city of Gatlinburg and Sevier County, Tenn., on Nov. 28. Seven people lost their lives in the blaze and several individuals were still missing at press time in late November.

The Southeast is currently experiencing a "once in a generation drought," according to PBS News. While drought has increased the spread and intensity of the fires, arson is to blame for many of them. The Associated Press announced that multiple people were arrested for intentionally starting fires. A Kentucky resident was arrested after he started a wildfire to gain popularity on his Face-



The Party Rock Fire rages near Lake Lure, N.C., in November. Photo by John Cayton

book page through a forest fire video.

Over 200 homes in the Nantahala National Forest in Western North Carolina were evacuated, and N.C. Governor Pat McCrory issued a state of emergency in 25 counties.

Smoke from the fires is also a public health hazard. According to the Weather Channel, at least two people in Kentucky died from respiratory complications due to the fires, while hundreds have been hospitalized.

Thousands of volunteers are working to stop the spread of the fires, including firefighters from across the country.

Citizens should check to see if their county is under an open burning ban. The North Carolina Forest Service advises keeping a shovel and water at hand if burning outside is necessary.

W.V. Chemical Spill Settlement Reached

By Elizabeth E. Payne

On Oct. 31, a settlement in a class-action lawsuit was released that compensates residents affected by the Jan. 9, 2014, chemical spill at Freedom Industries in Charleston, W.Va. At that time, the drinking water of 300,000 people was poisoned by a spill of 7,500 gallons of the coal-washing chemical MCHM into the Elk River.

Both Eastman Chemical Co., who produced the chemical, and West Virginia American Water Co., the private water utility, were named in the suit. Freedom Industries was not included because the company has filed for bankruptcy and its involvement would have delayed action on the case.

The settlement reached will divide

at least \$151 million between those directly impacted by the spill, which includes more than 224,000 residents, more than 7,300 business owners and an unnamed number of individuals who work in affected areas but live elsewhere. The settlement also stipulates that the settlement's cost to the water utility must be paid by the company's stockholders and not passed on to their ratepayers.

"I am pleased with the settlement and hope it will encourage our community and other communities to keep asking question and taking measures to protect water sources," says Crystal Good, the lead plaintiff in the case.

According to the Charleston Gazette-Mail, neither Eastman nor West Virginia American admitted any fault for the spill by accepting the settlement.

— EXPERIENCE AN — OLD-FASHIONED CHRISTMAS

The holiday countdown has started—lists are made and clocks are ticking. A camp stove for Johnny; a cast iron skillet for Suzanne; a leather journal for Joe—with an eclectic mix of surprises for your entire family, the best gift is your step back in time.



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Residents Seek to Halt New Development

By Tristin Van Ord

A proposed city plan to erect a shopping center and sports complex in Abingdon, Va., has led to a dispute between locals of the historic town.

The court case dealing with the zoning of the proposed development lasted for several hours as those in favor of the development and those opposed to it presented their cases. Judge Sage Johnson will make a final decision on Dec. 15.

The new development would be adjacent to the Virginia Creeper Trail, a 34.3 mile long rail trail that connects the towns of Abingdon and Damascus, and reaches the community of Whitetop. The popular trail is used by hikers, bikers, runners and horseback riders.

The shopping center and the athletic complex would be visible from the Creeper Trail. Friends of Abingdon, Inc., a local nonprofit preservation organization that formed in opposition to this plan,

is also concerned about pollution from traffic in and around the shopping center.

Stephen Jett, a board member of Friends of Abingdon, expressed concern that the new development would “drastically change the atmosphere” of the trail. The group seeks to halt the development for environmental, recreational and economic reasons.

“The community depends so heavily on historical and nature-based tourism, and all other developments should be compatible with that,” Jett says.

Jett explained that Friends of Abingdon has backed two new town council candidates who replaced members supporting the development.

Yet some residents and city planners are also in favor of the development. According to the Bristol Herald Courier, town officials have been discussing the possibility of a sports complex for more than 10 years.

Lifting Restrictions on Rural Broadband in East Tennessee

By Lou Murrey

The Sustainable and Equitable Agricultural Development Taskforce, a coalition of organizations representing underserved and underrepresented areas in East Tennessee, is working to bring broadband internet services to rural areas of the state.

Currently, Tennessee law limits the ability of municipal utilities to extend advanced telecommunication services like broadband beyond their service area or to create networks with neighboring utilities. Cities like Bristol and Morristown have successfully implemented public broadband on their own. But, according to the SEAD Taskforce, some rural parts of Tennessee are “relegated to expensive, poor-quality internet service only through satellite companies, if at

all,” and lack the ability to connect to existing broadband infrastructure.

Proposed Tennessee Senate Bill 1134 would remove some of the restrictions that make access to affordable broadband internet services difficult in rural areas. Members of the SEAD Taskforce have been facilitating meetings across East Tennessee with elected officials, utility boards and rural residents to discuss internet access in their communities and educate local governments and community members on S.B. 1134. SEAD has also worked with 16 counties in Tennessee plus the cities of Greenville and Bristol to pass resolutions in support of S.B. 1134. The bill has been in subcommittee since March of 2016, but a new legislative session begins Jan. 10, 2017.

Fifty Years of Foxfire Magazine

Foxfire Magazine, named for the bioluminescent fungus that grows on decaying wood, is celebrating its 50th anniversary.

The Rabun Gap-Nacoochee School in rural Georgia started the magazine in 1966. A high school English class decided to create a magazine featuring stories about Southern Appalachia. Foxfire has been thriving ever since.

Many of the stories focus on the pioneer days in Southern Appalachia, and how this era helped to define the culture of the community today.

The magazine is published twice each year by students at Rabun County High School. The magazine became so successful that anthologies of stories are published in multiple Foxfire books. — Tristin Van Ord

Southwest Virginia Gets a New Brand

The Southwest Virginia Cultural Heritage Foundation, the regional coordinating body for economic development and cultural heritage tourism, released a new logo and tourism map for Southwest Virginia in October. The new brand is intended to help boost community and economic development in the region. — Tristin Van Ord



Newsbites

Rare Elk Sighting in Upstate SC

A bull elk was spotted in Pickens County, S.C., in October. The Pickens County Sentinel reports that the elk was tranquilized and transported to a secluded area in the South Carolina mountains.

Elk were native to the Palmetto State until the 18th century, but there is no current population in the area.

Fungal Disease Threatens Snakes

According to the U.S. Geological Survey, over 30 species of snakes are now susceptible to snake fungal disease across 20 states in the Eastern United States.

The USGS reports that the disease causes blisters, thickened skin, ulcers and thinning in snakes. The outbreak could threaten certain species with extinction.

Hiking the Highlands Fall Creek Falls State Park A treasure of the Cumberland Plateau

By Molly Moore

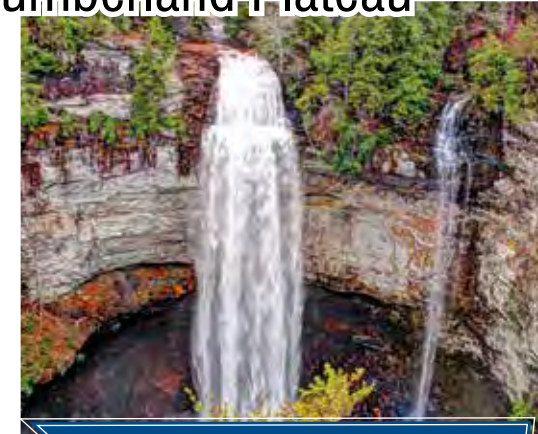
From Rocky Point Overlook during an unseasonably warm fall afternoon, the air is still, and the Upper Cane Creek Gorge stretches to the blue horizon, though the bottom, some 300 feet below, is out of sight. Even during a busy weekend on a popular loop trail, this point offers solitude and an expansive, humbling view.

Located on the western edge of Tennessee’s Cumberland Plateau, Fall Creek Falls State Park encompasses 26,000 acres. The area is largely comprised of limestone, shale and sandstone, where thousands of years of erosion have carved steep gorges, rocky bluffs, caves and underground rivers into the plateau’s rolling contours.

The five creeks that pass through the area give rise to six waterfalls within park boundaries, but that’s only part of the draw. Hikers can choose from 34 miles of trails, with options that range from wheelchair-accessible overlooks to two overnight backpacking loops at 13.2 and 14 miles long each. Another hike descends to the base of Cane Creek Falls with the aid of a cable — not recommended during wintry conditions. In addition to hiking, the park hosts activities such as biking, birding, horseback riding, fishing and boating; amenities even include golf and zipline courses.

To experience a slice of the park in just a few hours, Park Ranger Cara Alexander recommends a 2.9-mile loop that begins on the north side of the Betty Dunn Nature Center at the head of the gorge. From here, visitors look down into a wide pool formed by Rockhouse Falls and Cane Creek Falls, both of which are more visible later along the trail.

Following the paved path to the other side of the nature center, hikers arrive at the loop’s dramatic entrance — a classic wood-and-cable swinging bridge that spans the width of Cane Creek and bears a “Load limit, 6 people” warning sign. It’s worth pausing on the bridge to watch the creek pour over Cane Creek Cascades on its way to the larger wa-



Fall Creek Falls Loop

Length: 2.9 total miles (1.2 Gorge Trail, .4 each way on Fall Creek Falls Trail, .9 Woodland Trail)
Difficulty: Easy to moderate
Location: 10821 Park Rd, Spencer, Tennessee
Contact: Call 423-881-5298, visit tnstateparks.com/parks/about/fall-creek-falls

terfall and pool. A grist mill once stood above the cascades, but it was washed away during a massive flood in 1929.

After a flight of stairs, the trail climbs upward to intersect with Woodland Trail to the left and the Gorge Trail to the right. Either direction provides access to the loop, but hikers who opt for the right soon reach the brief side trail leading to Cane Creek Overlook.

This viewpoint looks across to the overlook near the nature center, but from this perspective the vista is even more impressive: Cane Creek Falls gushes 85 feet over a wide ledge, and, from another creek, narrow Rockhouse Falls plunges 125 feet. Both spill into a single deep, reflective pool.

Beyond the first viewpoint, the path continues along the plateau through a mix of pine, oak and hickory. Two short overlook trails to the right provide additional glimpses of Cane Creek Gorge. According to Alexander, the gorge is home to an old-growth forest that includes hemlock and yellow poplar.

As Cane Creek flows roughly 10 miles from the waterfall to the Caney Fork, it also drops underground in places where the limestone bedrock is dissolved by the water’s natural acids. The waterway flows in underground channels year-round, with an above-ground stream rising during periods of



Cane Creek Cascades, above, flows past snowy banks on a cool winter’s day. Photo by Cara Alexander. The day after Thanksgiving, hiker Debbie Blankenship visited Fall Creek Falls, the larger of the falls at left, and Coon Creek Falls instead of Black Friday shopping. Photo by Debbie Blankenship, Flickr/deblam1005(BLESSED)

heavy rain. During its underground journey, Cane Creek cools to 56 degrees before reemerging at Crusher Hole — a bright blue spring that is also 56 degrees year-round.

Further along the path, a fourth side trail leads to Rocky Point Overlook. Accessing the signature outcropping requires careful footing, but the broad panorama and bands of rocky bluffs on the opposite side are worth the scramble. Returning to the main path, the trail comes to a fork: the Woodland Trail, to the left, leads back to the nature center, and an out-and-back trail to the right heads to Fall Creek Falls.

The overlook here offers majestic views of Fall Creek Falls and the nearly adjacent Coon Creek Falls as they both plunge sharply into the same pool. Fall Creek Falls, which boasts a larger volume of water, drops a stunning 256 feet, while Coon Creek spills 250 feet.

To reach the base 300 feet below, fol-

low the orange-blazed downhill trail for .4 miles, past large boulders and rugged, overhanging cliffs. Floods tore through this channel in the distant and not-so-distant past, before a dam on Fall Creek began to regulate the waterway — it’s now the only managed stream in the park.

The path ends with the dramatic sights and sounds of two tumbling streams of water thundering — or splashing, depending on the water level — into a plunge pool, misting fellow trekkers.

Check with park staff before embarking on this section during winter. Even if the rest of the trail is in good condition, this area may be icy due to mist from the falls.

Return by walking uphill and back to the last intersection. Follow the easy Woodland Trail through the open forest and back to the swinging bridge and nature center. From here, enjoy a picnic at the lake’s edge, a meal or brew at the park lodge, or another adventure entirely. ♦

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Traveling The Crooked Road

Heritage music trail continues to draw visitors to Southwest Virginia

By Dave Walker

From Clintwood to Ferrum, from Glen Lyn to Galax, The Crooked Road is Virginia's Heritage Music Trail. Thousands seek out the 330 mile-long route each year to hear the sounds of America's roots music, which gave rise to bluegrass and country traditions. Nine major venues, 60 affiliated venues and festivals, and 26 wayside exhibits delineate the trail that follows much of Route 58, along with other sites across Southwest Virginia. But throughout the Appalachian region, The Crooked Road has come to symbolize much more: how a region can leverage its cultural assets to develop a new economy.

Fourteen years ago, on a January day with six inches of snow, 26 people showed up for a meeting to talk about a radical idea for Southwest Virginia — building an economic development plan around the region's traditional music heritage. Some drove from over 100 miles away.

"It was very surprising, and I like to say the Holy Ghost came down," says The Crooked Road co-founder Todd Christensen. "No one was in charge and everyone got turned on to having a music trail and having traditional music as the central development piece for our entire region."

Christensen initiated the idea for The Crooked Road with folklorist Joe Wilson and currently serves as the first executive director of the Southwest Virginia Cultural Heritage Foundation. He likened the founding to a stone soup supper, where artists, musicians, folklorists and economic development professionals contributed their skills to plan the "first step of our efforts to develop a creative economy in Southwest Virginia."

"It was a grassroots movement in the beginning," says The Crooked Road's Executive Director Jack Hinshelwood. "But people had enough vision to come together and see that the idea for a music trail had potential."

Today, The Crooked Road is run as a nonprofit that helps communities celebrate their heritage, weaving together the

unique roots-music stories of 19 counties, four cities and over 50 communities.

Musical Attractions

Bookended by the Ralph Stanley Museum in Clintwood, Va., and the Blue Ridge Institute and Museum in Ferrum, Va., The Crooked Road is anchored by nine major venues, including the Carter Family Fold, the Blue Ridge Music Center, the Floyd Country Store and the Country Cabin — the longest continuously run place to see live heritage music in the region.

Activities along The Crooked Road peak in the summer with festivals and fiddlers conventions. From June 9 to 17, the Mountains of Music Homecoming highlights 23 communities that work together to put on cultural events like public concerts, quilt demonstrations, lectures, outdoor movies, canoe floats and historic church tours.

"Mountains of Music Homecoming represents all the different things that communities are proud of, making it accessible to people in their community and people from other communities," says Hinshelwood.

But throughout the year, there is something different to hear and to see. A jam session or concert can be found nearly any night of the week in Southwest Virginia, says Hinshelwood, and many are listed on The Crooked Road's website.

"The Smyth County Jam has a wonderful jam on Monday nights. Thursday nights, we have a great jam at the Heartwood in Abingdon," he says. "Pretty much any time someone comes, there is something to do and see. There is way more than you can see, even in a two-week trip."

Boosting Local Economies

During the summer of 2015, the Virginia Tech Office of Economic Development studied the economic impact of The Crooked Road on the region. This



Tyler Hughes and his band perform at Lee Theatre in Pennington Gap, Va., during the 2016 Mountains of Music Homecoming. Photo by Jennifer Meade. At right, this signature sign for The Crooked Road marks the route. Photo courtesy of www.Virginia.org, Virginia Tourism Corporation

study found that, "The Crooked Road facilitates \$6.4 million of tourist spending annually in Southwest Virginia, resulting in \$9.2 million of total economic impact annually and an equivalent of 131 full-time jobs in the region."

Boosting the local economy was a primary reason for the creation of The Crooked Road. According to Christensen, in June of 2003, the original organizers of The Crooked Road set out two ambitious goals. "One, to make Southwest Virginia nationally known as a tourist destination, which at that time it wasn't," Christensen says. "And two, to triple the cultural heritage revenues in the area."

The excitement about the trail quickly grew. "Within 18 months, The Crooked Road was getting international and national press," says Hinshelwood. "We're now in our second decade, and it continues to be written about in international publications."

Nearly 42 percent of the trail's visitors come from outside the region, and almost half of these individuals "said they came primarily for The Crooked Road," stated the Virginia Tech study. This included visitors from Canada, France, Australia and the United Kingdom.

But The Crooked Road does much more within the region. According to the Virginia Tech study, "regional officials indicated the importance of The Crooked Road in encouraging 'pride' in the region's rich cultural heritage." This most notably occurs through The Crooked Road's Traditional Music Education Program's partnership with Junior Appala-

chian Musicians, which teaches children to play and dance to traditional old-time and bluegrass music.

Hinshelwood echoed the power that The Crooked Road has brought to Southwest Virginia. "By working with The Crooked Road, I'm really working around people that are positive and care deeply about the future of our region," he says.

The founders of The Crooked Road progressed to developing artisan networks in every county, which led to the development of a recreational outdoor network called Appalachian Spring.

"Protecting the water quality, viewsheds, forests, has become an economic development priority versus maybe six years ago those were seen as extractive assets," says Christensen, "Now those elements are seen as assets to be preserved to enable communities to have economic development."

These new endeavors have a promising example to follow in The Crooked Road, which has created a new way for communities in Southwest Virginia to work together to build local economies.

"Folks who are interested in cultural heritage or environmental stewardship can, now, band together with economic development people to realize that by working together we are all furthering each other's objectives," states Christensen. "The Crooked Road set that example: preserve the music and make it more accessible to people," he continues. "You don't compromise your assets for economic development; you build upon and promote them." ♦

For more information, visit myswva.org/tcr

Driving Trails of Appalachia

In addition to The Crooked Road, there are many other driving trails in Appalachia. Take a day or a week to discover the region's history, culture and environment! — *Compiled by Dave Walker*

Cherohala Skyway (North Carolina/Tennessee)



Photo by Brian Stansberry / Wikimedia

Opened in 1996 and costing \$100 million to complete, the 40-mile Cherohala Skyway is a National Scenic Byway that links Tennessee with North Carolina and is described as "a museum without walls." The roadway is a part of the Furs to Factories Heritage Trail that promotes the area's diverse economic history. Learn more at: cherohala.org or by calling 1-800-245-5428

Pie in the Sky Trail (Tennessee)

Connecting urban and rural Southeast Tennessee is The Pie in the Sky Trail, which travels past downtown Chattanooga's Bluff View Arts District and the Tennessee Aquarium, as well as features stops in South Pittsburg, home of the National Cornbread Festival, and in Dayton at the site of the 1925 Scopes Trial. Along the way, visit Civil War battlefields and mountain biking trails. Learn more at: tinyurl.com/PieSkyTrail or by calling 1-800-462-8366



Photo by Averette at English Wikipedia

Blue Ridge Parkway (North Carolina/Virginia)

Authorized by Congress in 1936, this 469-mile roadway connects the Great Smoky Mountains National Park in North Carolina to the Shenandoah National Park in Virginia. The National Park Service calls it a "museum of the managed American Countryside," and it showcases natural and historical highlights of Appalachia. Learn more at: nps.gov/blri/index.htm or by calling 1-828-348-3400



Photo by Randolph Femmer / USGS

Mountain Music Trail (West Virginia)



Courtesy Greenbrier Valley Brewing Co.

Following Route 219 along West Virginia's eastern Allegheny Mountains, the Mountain Music Trail is a portal into the area's musicians, venues and festivals. To learn more about the area's year-round events and the artists and musicians who call eastern West Virginia home, visit: mountainmusictrail.com or call 1-800-336-7009

Skyline Drive (Virginia)

Established in 1931, Skyline Drive is known as the Gateway to the Shenandoah Valley. This national park requires an entrance fee, but features long vistas and "fog oceans," as visitors take the 105-mile long trail. Various stops along the peak road offer hikes to waterfalls and rock scrambles. Learn more at: visitskylinedrive.org or by calling 1-800-847-4878



Courtesy Shenandoah National Park

Appalachian Quilt Trail (Tennessee/Virginia)



Photo by Stephani McCarty / AQT

Promoting Tennessee and Southwest Virginia's cultural, historical and recreational sites, the Appalachian Quilt Trail's slogan is "It's Whatever You Want It to Be." The map, created in 2012, lists over 700 unique barn quilt squares by their address and coordinates. Learn more at: vacationaqt.com or call 1-888-775-4AQT

AN APPALACHIAN BOOKSHELF

Exploring Iconic Grandfather Mountain

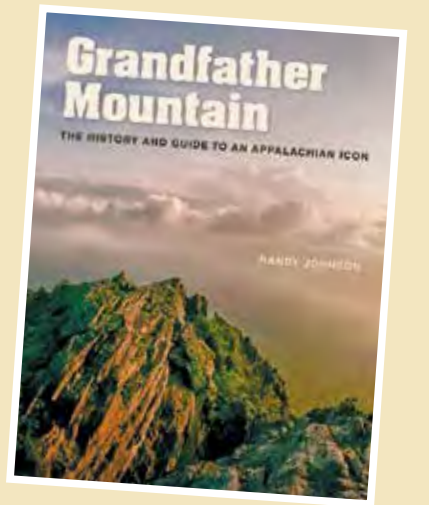
"Grandfather Mountain: The History and Guide to an Appalachian Icon" provides an in-depth history of the early exploration of this stately geologic figure of Western North Carolina and chronicles its development into a popular tourist attraction and state park.

In this beautifully illustrated volume, Randy Johnson shares both his knowledge of and love for this iconic mountain.

The book is divided into two sections. The first and longer section details the history of the mountain. After summarizing its geologic formation, Johnson details accounts of early adventurers and scholars who explored the mountain from the late 1700s onward. Later, townships around Grandfather were established, the railroad arrived, and the slopes were timbered and flooded.

Today, Grandfather Mountain is traversed by hiking trails, skirted by the Blue Ridge Parkway's viaduct and crossed by the mile-high swinging bridge. The book chronicles these developments, along with the impact of the MacRae and Morton families, who owned this property for many generations until two-thirds of the mountain were sold to North Carolina and became a state park in 2008. The remaining third is operated as a scenic attraction by the nonprofit Grandfather Mountain Stewardship Foundation.

The second section pro-



vides a guide to hiking and photographing Grandfather Mountain and includes a wealth of information about the landmark's plants and animals, together with an overview of the area's many trails.

The stunning images that accompany Johnson's text include a carefully curated collection of archival pictures and photographs taken by Hugh Morton — longtime owner of Grandfather Mountain until his death in 2006 — and by the author himself.

This book is published by The University of North Carolina Press, hardcover \$35, uncpress.unc.edu/books/12100.html. ♦

— *Review by Elizabeth E. Payne*



Profile of Grandfather Mountain. Courtesy of the Grandfather Mountain Stewardship Foundation

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Reclaiming Our Mountains

Returning mine lands to beneficial uses

By Elizabeth E. Payne

More than half a century of surface coal mining has left scars across Central Appalachia. As mining operations moved from one coal seam to another, more than a million acres were reduced to barren landscapes or replaced with gravelly grasslands. And mountaintop removal coal mining leveled more than 500 hundred mountains across Appalachia.

At least 233,000 acres of land in Central Appalachia were damaged by mining before 1977 and are in need of reclamation, according to a 2015 analysis by Appalachian Citizens' Law Center and The Alliance for Appalachia based on federal data. This figure conveys only a fraction of the area impacted by coal production, as it does not include lands mined after 1977. But no inventory of sites mined after this date is currently available.

"There are thousands of [abandoned mine land] features across Appalachia that still need to be addressed," say Adam Wells, economic diversification program coordinator at Appalachian Voices, the publisher of this newspaper. "These sites are liabilities in many ways, but they are also opportunities for a new approach to economic development in Appalachia."

Yet determining who is responsible for recovering mined lands to a condition similar to how they were before mining — a process known as reclamation — and for making these lands useful again is a complicated issue.

Paying for Cleanup

On Aug. 3, 1977, the U.S. Congress enacted the Surface Mining Control and Reclamation Act, which established the legislation that continues to regulate coal mining today.

The law created the Office of Surface Mining Reclamation and Enforcement and established its mission. One of the agency's programs governs the cleanup of abandoned mine lands, a term that refers to mine sites excavated before the passage of SMCRA. To pay for this, the law created the Abandoned Mine Lands Fund, which is financed by a tax on every ton of coal mined.

Another program oversees environmental regulations for coal mines that started after the passage of SMCRA. The law outlines how companies should reclaim the land and gives the agency the authority to ensure companies can pay for the remediation.

The ability to cleanup the sites mined in the 40 years since the passage of the federal law has been threatened by two related issues: bankruptcies and bonding.

Believing that China's demand for coal would continue to grow, beginning in 2011 many United States coal companies purchased more mines of metallurgical coal — which is used to make steel — than they could afford, including mines in Appalachia.

When Chinese demand and the price for the coal collapsed, so did the companies that bought the mines. Three of the largest American coal companies have filed for bankruptcy in the past year; Alpha Natural Resources filed in August 2015, followed by Arch Coal in January 2016 and Peabody Energy in April.

While the executives of these companies were well compensated, the corporations' obligations for miners' pensions and for reclamation of mine sites often went unfunded. As of April, Peabody has \$1.4 billion in unfunded reclamation needs, Alpha has \$640 million and Arch Coal \$485 million, according to the Washington Post.

Bankruptcy settlements have addressed only part of these debts. For example, in February 2016, regulators in Wyoming agreed to accept \$75 million to forgive a reclamation debt of \$485 million, according to the Associated Press. The remaining cleanup costs could fall to taxpayers.

And on Nov. 16, the West Virginia Department of Environmental Protection sued Alpha Natural Resources for fraud, alleging that the company's executives knowingly hid \$100 million in debts in order to secure their bankruptcy settlement.

"There is no doubt that the newly disclosed \$100 million shortfall seriously threatens the reorganized debtors'



This data center at left could get its electricity from a solar project proposed for a site near the Wise County Airport in Southwest Virginia. Photo by Gerald Collins. Above, students from Appalachian State University plant seedlings on a surface mine in Eastern Kentucky. Photo by Kylie Schmidt

viability and ability to perform their legal obligations to bond and reclaim their remaining mine site," the West Virginia Department of Environmental Protection filing stated.

At issue in all of these unfunded obligations is a practice called self-bonding. Before a mining permit is issued, federal law requires mining operators to provide a financial guarantee — or bond — large enough to cover the cost of cleanup after mining is complete. But rather than requiring a company to secure this money from an outside source, many states allow companies to self-bond. This means that they can use their own financial history as a guarantee for their ability to pay for reclamation.

This practice has come under scrutiny after so many coal companies filed for bankruptcy while responsible for billions of dollars in unfunded cleanup costs.

The Office of Surface Mining Reclamation and Enforcement began a rulemaking process in August 2016 to require a more robust analysis and review process before allowing companies to use self-bonding.

Other forms of paying for reclamation after mining also carry risks. Several states, including Kentucky and Virginia, allow companies to use a financial structure called a "pool bond." In this model, several companies each pay a fraction of

their expected cleanup costs into a common pool, out of which reclamation costs can be paid should any of the companies go bankrupt.

This system can support individual bankruptcies, but "the fund is completely unprepared to address the increasingly likely scenario that multiple operators holding multiple permits will decide that they can't or won't follow through on their reclamation commitments," states a blog by Peter Morgan, a staff attorney with the Sierra Club's Environmental Law Program.

A Case for RECLAIM

However, none of these issues impact mine lands abandoned before the passage of the federal law. For sites mined before 1977, funding sources for reclamation work are well established, if limited.

"In the early years, the [Abandoned Mine Land] program focused on the physical reclamation of hazards affecting coalfield communities," states the Office of Surface Mining Reclamation and Enforcement website. "More recently, the program began working to reclaim the vitality of communities left impoverished and degraded by past coal mining."

The RECLAIM Act, a bipartisan bill introduced by Congressman Hal Rogers (R-Ky) that is currently before the U.S. Congress, would create economic opportunities in areas historically im-

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Reclamation

continued from previous page

acted by coal mining. The bill would accelerate the release of \$1 billion from taxes already paid by coal companies and invest the funds in projects such as restoring abandoned mine lands to beneficial use.

The economic development potential of 14 abandoned mine land sites in a seven-county region of Southwest Virginia was highlighted in a November report produced by Appalachian Voices, the regional nonprofit that produces this newspaper, Downstream Strategies, an environmental consulting firm, and Coal Mining Engineering Services, a consulting firm specializing in coal mining and reclamation work.

With funding from the RECLAIM Act, the report concludes, these sites could be repurposed to better serve the area through ecotourism, agriculture, renewable energy and commercial development.

The goals of the study were to demonstrate the need for RECLAIM funding and recommend sustainable projects that could create good jobs on former coal mines.

"One of our hopes for this report is

Proposed Uses for 14 AML Sites in SWVA



to offer place-based, forward-thinking economic development opportunities that reverse the trends of extraction by investing in historically coal-reliant communities," says report co-author Adam Wells of Appalachian Voices.

According to Gerald Collins, a co-author of the report and owner of Coal Mining Engineering Services, LLC, there are about 50,000 acres of identified abandoned mine lands in the seven-county area. Other coal mining states in Appalachia have even more acres of impacted lands.

"The problems are just as real [in Southwest Virginia] as they are in Kentucky and West Virginia and Pennsylvania," Collins says.

Abandoned mine land sites are classified by OSMRE based on their level of risk to human health and safety. Priority

1 sites pose an extreme danger to human health and safety, while Priority 2 sites pose a danger to human health and safety but not an extreme one. Priority 3 sites pose environmental risks, but do not directly threaten human health and safety.

The federal law requires that Priority 1 and 2 sites must be cleaned up before funds are used to reclaim Priority 3 sites. Because there is a shortage of funds, many Priority 3 sites remain underutilized. But Collins notes that "with the RECLAIM Act, you're looking at specifically money for [abandoned mine land] sites that have economic development potential."

One example highlighted in the study is a proposed solar installation on more than 400 acres of land near the Wise County Airport. Much of this



A new study shows the potential of 14 abandoned mine land sites in Southwest Virginia to contribute to the local economy. All of the sites have coal mining features, such as this abandoned underground mine portal at a proposed recreational site in Haysi. Photo by Libby Bringner

land was re-mined and reclaimed since SMCRA, but several Priority 3 features remain, including a mine opening portal, that would make the parcels eligible for RECLAIM funding.

This project already has backing from several local agencies that are eager to provide renewable energy to the area's growing information technology industry cluster. According to the November report, the land could support a 20-megawatt solar installation and provide more than 200 local full-time jobs during construction and three

continued on next page

Will you stand with us?



The communities where Appalachian Voices works have experienced firsthand the high costs of an exploitative, dirty energy economy. We cannot stand by and ask them to live with that legacy or with looming threats. So we're standing with them, playing a vital role in both reducing the impacts of fossil fuels and expanding clean energy.

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Join Appalachian Voices today.



AppalachianVoices.org/standtogether

Photo: Kent Mason

Reclamation

continued from previous page

permanent positions after construction.

"There's a lot of potential," Evan Fedorko of Downstream Strategies says. "[Some] folks just aren't looking for the potential, but they're just continuing to be discouraged or despondent about [unreclaimed areas]. And there's a lot of potential there."

Fedorko is particularly interested in seeing some of the mine lands reused for agricultural purposes. He says that he has encountered the misperception that all former mine land sites are unsafe for agriculture, but he insists that this is not true and that testing is available to ensure that no hazardous materials are present on a site.

The Foxfire Farm in Dickenson County is an example. Portions of the 110-acre farm were mined during the '60s, '70s and early '80s. According to the study, some of the land was mined after the passage of SMCRA, but before Virginia established its Department of Mines, Minerals and Energy. As such, it falls in an "interim period" and is not eligible for RECLAIM funding as the bill is currently worded.

"My property is clearly representative of the mass majority of land that has been strip mined and reclaimed," says Tammy Owens, the owner of Foxfire Farm. "Even after almost 50 years, the land is unproductive and nowhere near what it was before it was mined."

If funding were available, Owens says she would use the money to restore the topsoil to support the farm's organic production of cultivated and wild-simulated medicinal herbs.



Tammy Owens' Foxfire Farm at left is on former mine lands that could benefit from an investment from the RECLAIM Act. Photo by Adam Wells. This 20-year-old research plot demonstrates the success of Forestry Reclamation Approach. Photo by Matt Barton

The authors of the report make several recommendations, including that the wording of the RECLAIM Act should be modified so that some abandoned mine lands that were re-mined after 1977 could be eligible to apply for funding.

Such an expansion of eligibility would increase the pool of potential sites that could be repurposed for economic development. It would also provide a chance for reclamation at sites that have fallen through the cracks.

Restoring Forestland

Before they were mined for coal, most Appalachian peaks and slopes were covered in forests. And many scientists, government officials and environmental advocates hope to see reforestation as part of future reclamation plans.

Leading these efforts is the Appalachian Regional Reforestation Initiative, a coalition of citizens, industry and government representatives within the U.S. Office of Surface Mining Reclamation and Enforcement. The initiative was established in 2004 with the goal of reforesting mine lands in the eastern United States.

Dr. Patrick N. Angel is a senior forester and soil scientist at the agency and a liaison to ARRI. But he began his career as a reclamation inspector for the state of Kentucky and became a federal inspector in 1978 after the

passage of SMCRA.

"Before the federal law, trees were growing very, very well on mine sites. But we had this problem of landslides," says Angel. To eliminate the risk of landslides, SMCRA called for mine lands to be stabilized. But these compacted surfaces were ill-suited for growing the native trees that had existed prior to mining.

"Basically, it created a landscape that could not return to a healthy, productive forest without serious human mitigation."

Angel followed this approach until nearly two decades ago, when one of his forestry professors helped him realize that the choice needn't be between safety or trees. It was possible to have both.

Angel says that he and about a dozen other foresters, soil scientists, mining engineers and hydrologists decided to try and change how things had been done for more than 25 years. He recalls his thoughts from that time: "We got to get the mining industry to change the way they are doing reclamation. We've got to change the culture of what people think good reclamation looks like. It's not golf courses, okay. It's something altogether different."

Angel and his colleagues were introduced to the Forestry Reclamation Approach, which is now advocated by ARRI and its nonprofit partner Green Forests Work. This method provides guidelines for re-establishing healthy forests on formerly mined lands by establishing a thick layer of loose topsoil, minimizing competition from invasive species and carefully planting select varieties of trees.

In 2007, researchers at Virginia Tech and the University of Maryland determined that more than 740,000

acres of previously mined land in the Eastern United States are suitable for reforestation. While the process is expensive — costing \$1000-\$1500 per acre, according to Angel — Green Forests Work has planted almost two million trees on nearly 3,000 acres since 2009.

"Up to a million acres of these [former mine] lands could be reforested and a lot of the acres are slopes that you can't develop and build on, you can't build roads to, there's a lot of areas that make more sense to put back into a healthy productive forest," says Angel.

Citizen Site Inspections

In late August 2016, representatives of Statewide Organizing for Community eMpowerment (SOCM), Tennessee Chapter Sierra Club and Tennessee Clean Water Network participated in inspections at four mine sites in Claiborne County. The inspections took place near Straight Creek, Tackett Creek and several unnamed tributaries, where mining operators had requested a bond release.

As a mining company completes the reclamation process, it applies for a return of the money put forward to cover the cost of cleaning up the site. According to federal rules, the release of a bond occurs in phases as the company completes different stages of reclamation.

SMCRA requires mining companies to announce in local papers when they are requesting a bond release. Environmental groups in Tennessee monitor local papers in areas being mined so that citizens can participate in the process, as is allowed by law.

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This GREEN House

Electric Cooperatives Initiate Community Solar Projects

By Tristin Van Ord

"We're at an age where we need to start looking at alternative energy," says Olivia Haney, a member of the BARC Electric Cooperative since 1989.

The BARC electric co-op in Virginia and the Appalachian Electric Cooperative in Tennessee have both launched community solar projects to help members save money while reducing carbon emissions.

Community solar is a cooperative alternative to installing solar panels on an individual residence. Instead of dealing with the upfront and maintenance costs of solar panel installation on their house, homeowners can invest in a solar farm, or array of solar panels, provided by the BARC electric cooperative. BARC's solar farm is a grid that consists of 1,750 solar panels. Now members of BARC can invest in solar and avoid dealing with personal solar panel installation.

Mike Keyser, the CEO and general manager at BARC, explains that there was a lot of interest in solar by members of the cooperative, but there was no real increase in the installation of solar panels on individual houses. Keyser adds that certain aspects were preventing people from investing in renewables, including physical barriers such as shading and positioning of the house, along with financial barriers including upfront costs and commitments.

The new solar project provides up



BARC's solar farm contains 1,750 solar panels and produces 550 kilowatts of energy. Photo courtesy of the BARC Electric Cooperative

to one-fourth of the total energy needs of each of the 220 households that have a membership in the cooperative.

Not only does this option allow any member to invest in solar, it also prevents the possibility of future rate increases through a 20-year fixed rate at only a dollar more per month than what standard customers are paying.

BARC sells its solar energy in "blocks," which are made up of 50 kilowatt hours each.

"We rolled the subscriptions into something called 'solar energy blocks,'" Keyser explains. "If it's an average customer, 25 percent of their consumption would be five blocks, which is an easy thing for people to wrap their mind around."

Community members who live in the five rural counties in Virginia that BARC covers can apply to be a part of the program, including all of Bath Coun-

ty and parts of Highland, Alleghany, Augusta and Rockbridge counties. BARC member Haney joined the community solar program after learning about the environmental benefits of renewable energy.

When it comes to the growth of the project, Keyser is optimistic about the possibilities.

"We have room on the site to triple the size. It's 550 kilowatts, and we can go up to about a megawatt and a half, so we are hoping to expand in another year or so," says Keyser. "Once we feel like we've given the option to every member that wants an opportunity, then we would increase the percentage."

According to Keyser, most subscribers in the solar project have shown interest in increasing the percentage of their electricity covered by solar.

Tennessee's Turn

Appalachian Electric Cooperative, an electricity provider based in New Market, Tenn., is also starting a community solar program. According to Mitch Cain, the co-op's director of member services, the solar array will be operational after Dec. 12 and consists of 9,471 panels at 145 watts each. Any residential or commercial member of Appalachian Electric, which covers Grainger, Hamblen, Jefferson and Sevier counties in Tennessee, can take part in this new initiative.

Subscribers to Appalachian Electric's solar program can invest in individual solar panels. Members pay \$125 per 145-watt panel as an upfront cost. There is a cap at 5,000 watts per residential customer and 10,000 watts for commercial subscriptions. Members begin receiving solar energy credits on their bills the month after they start the program. The time needed to recover a member's investment is estimated to be about 12 years.

Community Solar's Effect on Carbon Emissions

United States businesses have installed enough solar energy to offset almost 890,000 metric tons of carbon dioxide each year, according to the Solar Energy Industries Association. Solar panels convert energy from the sun into electricity that can be used in place of other non-renewable sources such as coal and natural gas.

BARC's calculations state that their solar project will prevent 11,000 metric tons of carbon dioxide from being released into the atmosphere.

Appalachian Electric's program projects that 202 pounds of carbon will be offset per year for each panel installed. Over 20 years, one panel will keep 3,866 pounds of carbon from entering the atmosphere.

"Solar is here. It is something we can harness and use to help us and help the environment," BARC co-op member Olivia Haney says. "Hopefully we will see more of this, and hopefully we will see more than just the co-ops looking to do this." ♦



Axel Ringe, conservation chair of the Tennessee Chapter of the Sierra Club, takes a water sample at an inspection of a mine site. Photo courtesy of Tennessee Chapter of Sierra Club and Statewide Organizing for Community eMpowerment

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Sunny Day Homes is in the final stages of building a very unique house in Watauga County, N.C., that will make full use of the sun's energy. The house is sited so that the south wall runs nearly directly from east to west, which means it is exposed to as much heat from the sun as possible. It has minimal windows on the north, east



and west sides. The square footage of windows on the south side is calculated to be enough to supply most of the heating needs for the home when combined with the heat-storing capability of the floor, which is made of acid-stained concrete that retains

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heat very well.

The house has been "dried in" for a couple of months now, meaning the windows and doors are installed and the roof is on. Despite nightly temperatures in the thirties, no heat has been turned on in the house yet, and the house is able to maintain a stable and comfortable temperature. This is due to the concrete floor that retains heat longer than a typical floor such as wood,



which heats up quickly but cools down just as quickly.

The other factor that greatly contributes to the thermal stability of the home is the tightness of the building's envelope, which is the barrier that divides the conditioned area from the unconditioned area. A great deal of attention and detail went into the thermal envelope of this home.

Thanks to that upfront effort, we now have minimal air leakage into and out of the home.

Home on the Appalachian Range

By Otto Solberg

Though horses and ponies now graze some mountain ridges in Kentucky and Virginia, these members of the equine family are not native to the Appalachian Mountains. After being introduced by humans, ponies in the Grayson Highlands area of Virginia and horses in Eastern Kentucky have become part of the ecosystems in their areas, living off of grasses and small shrubs with rare human management.



Ponies of the Grayson Highlands

After just a few miles of walking through Grayson Highlands State Park, hikers can meet herds of wild ponies who are generally unconcerned by human presence. The rhododendron along the lower-elevation trails soon clears, giving way to the open grassy balds that characterize the Grayson Highlands and Mount Rogers National Recreation Area. The balds reveal stunning views of the Southwest Virginia mountains, and upon a closer look, hikers can spot more white and brown ponies grazing between the rock outcrop-

pings on nearby ridges.

"I would bet that 50 percent of the people that come there, come for the ponies," says Elizabeth Wegmann, a landscaper and animal photographer who hikes the area several times a month, learning the ways of the estimated 100 ponies that call these mountains home.

"[The Grayson highlands ponies] have 1,500 acres of contained area that they can roam in the state park," says Teresa Tibbs, the office manager at Grayson Highlands State Park. In the neighboring national recreation area, the ponies

are also contained in a fenced area of over 3,500 acres, according to Rebecca Robbins with the George Washington and Jefferson National Forests.

The ponies maintain the mountain balds by eating grasses and small shrubs. These open grasslands are not natural, but were cleared and used as farmland before the area became park lands. The ponies have not caused overgrazing issues, in Wegmann's opinion, and in 2012, longhorn cattle were also added to the Mount Rogers area to help graze the balds during the warmer months.

The cattle are removed in the winter while the ponies stay and forage for food through the snow. Wegmann has observed that winter weather decreases the herds' activity because they stay near various water sources, but harsh winters can force the ponies to spread out from their herds in search of food.

This mare and her foal were grazing at Massie Gap in Grayson Highlands. Photo by Martin Seelig of Catchlight Gallery



Ponies were introduced to the Grayson Highlands and Mount Rogers area of Southwest Virginia in the 1970s. Since then, they have become a popular attraction. Photo on left by Sharon Canter and above by Michael Speed

Troubles with Treat

Signs in the park urge visitors not to feed the ponies, but Tibbs says the park has issues "continuously." Dependence on handouts of human food can cause serious health and behavioral problems for the ponies.

Ponies lack the ability to vomit, so human food can also cause health issues such as choking. Also, too much sugar can cause a disease known as laminitis, which causes the ponies to have sore and sometimes diseased hooves. When bad enough, the pain can severely debilitate the ponies. Without the ability to walk, the ponies will starve to death.

Despite this danger, the wild ponies have grown accustomed to being fed by hikers, and will approach visitors without fear.

"When you hand-feed a wild animal, you create a pattern that exists long after you leave," says Wegmann. "You're doing a disservice to the animal, and anyone that comes after you, by making

them a beggar and a nuisance."

According to Tibbs, eating human food can make the ponies seem aggressive "because they know that people are going to feed them something, and that causes problems."

"They are wild ponies," Tibbs says, "and they do bite."

The Wilburn Ridge Pony Association

Before the Grayson Highlands became a state park in 1965, the mountains were covered in farmland grazed by cattle and a few ponies. In 1974, Bill Pugh and another

pony owner brought 20 ponies to the park to maintain the grassy balds that were no longer being grazed.

According to Tibbs, the ponies "were introduced as a resource management initiative."

In 1975, the Wilburn Ridge Pony Association was formed as a

continued on next page



Photo by Elizabeth Wegmann

Pony Facts

- The parks are home to 10-15 herds of varying size.
- Mares breed once a year.
- Like horses, ponies' lifespans range from 8 to 20 years.
- These ponies reach 10 to 12 hands tall, or approximately 40 to 48 inches high.
- Despite their size difference, the ponies get along with cattle.

The Free-Roaming Horses of Eastern Kentucky

Kentucky may be the home of Lexington — the Horse Capital of the World — but in the eastern mountains, it can be difficult for farmers to find enough pasture for their horses.

The mountain forests are generally too dense for grazing. But after surface coal mining, mining companies are often required to plant grass fields to reclaim the land. Ginny Grulke, the volunteer executive director of the Appalachian Horse Center in Eastern Kentucky, says it became tradition in the 1970s for Kentucky farmers to release their mares onto reclaimed mine lands to let them graze on the unused fields. The horses were easily managed in their small populations, and without stallions there was no breeding.

The Appalachian Horse Center was founded in 2013 to help solve issues that arose with free-roaming horses after owners began leaving the horses on the mountains year-round.

"Everything kind of changed in 2008 when, due to the recession, people started simply taking their horses up there and abandoning them because they couldn't afford to keep them," Grulke says.

While the former mine lands have lots of space and food for the horses, the problems came when stallions were released onto the mountains. According to Grulke, this led to "indiscriminate breeding" and expanding herds. Mares that breed every year must care for one foal while pregnant with the next one.

This takes a significant

toll on the mother, especially during winter months when grazing is more difficult. While many horses may grow hungry in the winter and venture down the mountains for food, Grulke says it is natural for the horses to lose weight and appear skinny in the winter. Still, the Appalachian Horse Center aims to provide hay and salt blocks during harsh winter weather.

According to Grulke, overgrazing on former mines is a rare problem that does arise when horses eat the growing shoots before the grasses are established. This can be a problem for mine operators who must reestablish vegetation before they can get their bonds released. When coal companies begin mining, they are required to set aside money, in the form of bonds, to pay for cleanup when mining is complete. Those bonds are returned to the company if they they restore the grounds to satisfactory condition (see story on page 10 to learn more).

Once the grass is established, the



Domesticated, feral and wild-born horses find their home in the mountainous landscape. Photo by Timothy Hudson

Horses graze in the mountains of Eastern Kentucky. Many roam free on former coal mine sites. Photo by Timothy Hudson

horses can actually help with the process of recovering the land. Grasses that are grazed "tend to put out stronger root systems," Grulke says, and the manure enriches the low-quality soil left from the mining process.

The Appalachian Horse Center has counted 450 horses on the mountains, but some estimates are above 3,000, according to a 2015 article in the Lexington Herald-Leader. Some of the horses are owned, domesticated and cared for, while others are feral or were born wild.

Feral horses were once domesticated, but have been living in the mountains long enough to become essentially independent of humans. "It's not that [those horses] are afraid of [humans], but they could care less about interacting with them," Grulke says.

Wild horses, however, have never experienced human handling and were born on the mountains without human intervention. Wild horses are more timid around people and are often harder to find or catch.

Grulke explains that the free roaming horses rarely need to be caught unless they are causing property damage, such as eating crops and shrubs, or posing a public safety hazard by crossing roads. When this happens, the county's animal control centers or local sheriffs round up the horses and input their information into a database in hope of an owner claiming them.

If the horses are unclaimed after 15 days, they are made available for adoption. Accord-

continued on next page

Kentucky Horses

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ing to Grulke, most counties in the area don't have a place to hold the horses during this process, so horse rescue organizations and local residents often give the horses temporary homes. The Appalachian Horse Center plans to help hold the horses while they are waiting to be claimed by their owners or for adoption.

"We are a nonprofit, but the business model is to generate revenue out of tourism in order to underwrite the equine therapy services, the adoption process, keeping the horses and so-on," says Grulke.

The Appalachian Horse Center hopes to attract tourists drawn by the same joy that the locals get from visiting the horses on the mountains.

Grulke says she has seen families, many of whom don't own horses, drive to the areas frequented by horses to pet them and feed them apples and carrots.

"It's just for them a really nice kind of enjoyable thing to do," says Grulke. "It's entertainment."

In Lexington, tourists rarely get to touch the horses, but the Appalachian Horse Center plans to have a hands-on program where visitors can learn to halter, lead and brush the horses. Grulke believes this will be good for families — and for the horses too. ♦



This pony weathers a winter storm on the Grayson Highlands. Photo by Michael Speed

Grayson Ponies

continued from previous page

nonprofit organization to purchase the free-roaming ponies from Pugh.

Although none of the original ponies are alive, the Wilburn Ridge Pony Association still maintains ownership of the mostly wild herds. Throughout the year, members ride horses through the park to check on the ponies and set out salt and worming blocks. Salt blocks give necessary minerals, while the worming blocks prevent worms that can cause intestinal issues.

The association also holds a round-up every fall to check the health of the herds and to separate the foals for auction.

Rounding up male foals is part of the association's agreement with the national forest and state park to keep a healthy number of ponies in the herds. As the males grow into stallions they split away from their mothers, creating more herds, but of smaller sizes which aren't as safe. The association's members create round-up corrals with a

V-shaped fence that allows the ponies to enter, but not escape. Similar to a lobster trap, this method allows the association to humanely separate the foals from the herd without hurting them.

Both male and female foals that have been rounded up are then sold at auction to individual owners, ranging in price from \$35 to nearly \$1,000. Foals from the park's celebrity stallion, "Fabio," are often the most desired for their long blonde manes.

The ponies of Grayson Highlands and the Mount Rogers National Recreation Area not only provide a necessary resource to maintain the open mountain balds, but also draw tourism to the park.

Although the ponies live wild on mountains with limited assistance from the Wilburn Ridge Pony Association, they have grown unafraid of human hikers. Their curious personalities give visitors a unique experience as they enjoy the immense views of the Blue Ridge Mountains. ♦



This pair of horses — a tan female and gray male — were out on an Eastern Kentucky mountaintop on a rainy morning. Photo by Jack Dean III

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In search of the ponies

To plan a trip to the Grayson Highlands, Wegmann suggests a good map such as the National Geographic maps that can be purchased at the park's ranger station.

For the best chance of finding the wild ponies, Wegmann recommends starting south on the Appalachian Trail towards Mount Rogers. The ridge offers a wide view to spot ponies. For more specific directions, contact Wegmann on Facebook @grayson-highlandsponies, or call the Grayson Highlands State Park office at (276) 579-7092.

Some foals on the Grayson Highlands are rounded up every fall and offered for auction in order to maintain a healthy herd size. Photo by Elizabeth Wegmann

Following Cherokee Footpaths

A quest to document and preserve Southern Appalachia's indigenous trails

By Kevin Ridder

Hundreds of years ago, before interstate highways drove through the mountains, a network of trails winding around the Southern Appalachians served as the arteries of the sovereign Cherokee nation. Carved by man and beast alike, the trails evolved following the curves and contours of the land.

Lamar Marshall, cultural heritage director of Wild South, a nonprofit organization dedicated to protecting the South's wild places, has spent the last eight years pairing historical maps, surveys, journals and oral histories with geospatial mapping technology to bring this vast interconnected web to life. A background in engineering and land surveying provides him with an expertise in map reconstruction — a lifetime as an outdoorsman gives him everything else.

"What really got me was reading about Native Americans and how free they were," Marshall says. "They lived off the land, they were totally independent and self-sufficient before the Anglos came in. I just admired the way they could live in the outdoors."

Winding around the Appalachians with very little help from my GPS to Marshall's homestead in Cowee, N.C., I soon found that his admiration extends far beyond that of a casual scholar; Lamar and his wife Kathleen live almost completely off the land.

Luckily, Marshall sensed my status as a city-dweller and had sent me in-depth instructions to his little house on the mountainside. After only three wrong turns and one stop for directions, I was pulling up their driveway with a trio of baying hounds close behind.

"Most of the food we eat is either hunted or grown out back in our organic garden," Marshall says as we walk into his house. "Deer season starts up soon so we'll have to make some space in our freezers. Remind me to give you a few bags of veggies."

Walking upstairs to his office, Marshall pushes aside a heavy blanket that he says prevents their small but powerful wood stove from overheating the bedroom.

Countless papers and artifacts are stacked around his office, with just enough room for two people to sit in



"This trail system is the circuitry and the main arteries of all the main transportation systems today, especially the older transportation systems," Lamar Marshall says, standing in an ancient Cherokee footpath later used as a U.S. Army wagon road and a Trail of Tears corridor. Photo by Kevin Ridder

front of the four monitors lining the desk. Near the window hang several name badges from conferences where Marshall has presented his life's work.

Various scans of 18th-century era maps and journals pop up on the monitors as the computer starts up. Marshall double checks the Wi-Fi hotspot on his phone; the fact that the internet company has yet to extend their service this far up the road hardly slows him down.

"In 1991, I moved into the Bankhead National Forest in Alabama, and the [U.S. Forest Service] was mowing it down," Marshall says. "They were cutting down 200-year-old hardwood ridges, replacing them with monocultures of loblolly pine. Converted 90,000 acres into these plantations."

Except it wasn't just trees they were cutting down, Marshall explains. One of those clearcuts exposed Indian Tomb Hollow, an archaeological site in the heart of Bankhead National Forest

sacred to regional Native Americans. Looters soon invaded the area and dug up several of the graves.

Outraged, the Blue Clan of the Echota Cherokee teamed up with Marshall and other locals to form the publication Bankhead Monitor and the nonprofit group Wild Alabama, with the goal of preventing future clearcutting of sensitive areas. Their efforts led to the protection of roughly 180,000 acres in the Bankhead National Forest.

In 2007, Wild Alabama became Wild South, an Asheville-based nonprofit that currently has more than 15,000 members dedicated to preserving the South's environmental and cultural landscape. Since its inception, Wild South has helped protect half a million acres of land and numerous species of wildlife in North Carolina, Alabama, Tennessee and beyond.

continued on next page



A 1747 canvas map of the Provinces of North and South Carolina drawn by Englishman Emanuel Bowen. It shows several historic Cherokee towns and settlements. Scan courtesy of Lamar Marshall



Lamar Marshall compares archival materials like this 1759 hand-drawn map to archival journals and land surveys to help find the location of old Cherokee trails and towns. Scan courtesy of Lamar Marshall

Cherokee Trails

continued from previous page

Delving into the Archives

With grants and a seal of approval from the Cherokee Preservation Foundation, a nonprofit group funded by the Eastern Band of Cherokee Indians, Marshall and his team from Wild South have used archival records to map well over 1,000 miles of Cherokee foot trails and around 60 historic Cherokee towns and settlements in the last eight years.

"I not only map the trails and towns, but we also go to archives all over the East, including the National Archives in D.C., photographing old records to the extent that I have over 100,000 images," Marshall says. "Instead of trying to pick and choose records, we go box to box and photograph them all for study when we get back. We'd never have time to go through them all when you're at the archive."

"By reading these old documents, letters and affidavits, you glean out these tidbits of geography and ecology," he continues. "You begin to put together the big picture: that the trail system is continental wide."

These files don't just gather dust on Marshall's hard drive, either. Every archival document he photographs is gifted to the Qualla Boundary Public Library in the Eastern Band of Cherokee Indians for genealogical research.

Russell Townsend, tribal historic preservation officer with the Eastern Band of Cherokee Indians, says his work has benefitted greatly from having access to these files

"We use those archive materials daily to research Cherokee history and culture," Townsend says. "They run the gamut from some of the earliest English activity in the area in the late 1600s up to [Bureau of Indian Affairs] activities in the 20th century."

"The knowledge gained from them is really important because it shows [the Cherokee foot trails] connected these communities in ways that the automobile roads don't," Townsend continues. "You realize that some places divided



Lamar Marshall stands near the mouth of Brush Creek as he looks out over the Little Tennessee River. Photo by Kevin Ridder. As this 1837 U.S. Army Map to the left shows, Brush Creek was once known as Raven Creek. This map was used by Marshall to help put together the storied history behind the trail section we hiked. Scan courtesy of Lamar Marshall.

today by a 15 or 20 mile drive around a long ridge was really just four or five miles of a hard walk. Back in the 20th century and before, that kind of hike was nothing. So really a lot of communities are more connected historically than we thought, and that affects linguistic patterns, cultural patterns, material patterns — everything."

Stepping Through Time

After exploring the history behind the trails, Marshall and I drive to the Needmore State Lands to hike a section of an ancient Cherokee foot path that eventually became part of the Trail of Tears.

Coming to a stop by a swinging foot bridge, we cross the Little Tennessee River and begin our trek through the trees. Marshall deftly outpaces me as I attempt to fend off the thorny underbrush. Reaching the edge of the

of these trails are open to the public, save for the sections that run through private land. Many continue to be in use today as roads and hiking paths.

Due to its status as a Trail of Tears corridor, Marshall informs me, the trail we are walking on will almost certainly be nominated.

"There's no way to tell how old these trails are," he says. "They say Paleo-Indians got here 13,000 years ago. Now I don't know if they're that old, but it dates at the very least back to the Mississippian culture [between 800 CE and 1600 CE]."

"This is a natural walkway, too," Marshall continues. "The buffalo could've even tunneled it. This right here is a jewel, it's priceless. Not only to the Cherokees, but to everybody. And it could've easily gotten bulldozed away if we hadn't identified it, mapped it and turned it into the state."

To date, Marshall has mapped over 1,000 miles of trail with GIS and topographic maps and field-mapped over 200 miles by foot. He inputs each trail's GIS data into a yet unfinished ArcGIS Story Map with the hope that it can eventually be used as an educational tool. Its completed form will have narrative, text, images and multimedia content layered over the trail network to provide a glimpse into our region's past. Samples of the maps Marshall has created are available on the Wild South website. Out of respect for the Cherokee people, no sensitive, sacred or archaeological sites are shared with the public.

To thank him for his contributions to Cherokee cultural preservation, members of the Eastern Band of Cherokee Indians gave him a name: Usdi-nvno Awatisgi, or "Trail Finder."

"It's really cool when you look at a map and see how interconnected things really were," Russell Townsend of the Eastern Band of Cherokee Indians says. "There are stories about people who traveled on them regularly, various incidents that happened on them that are prominent to our history and culture. I think our elders are very pleased that the knowledge of these old foot trails is not going to be lost."

To view some of the maps Lamar Marshall has created and find out more about the Cherokee journey, visit cherokee.wildsouth.org. ♦

Appalachians Against The Dakota Access Pipeline

By Willie Dodson

Across Appalachia, communities are supporting the indigenous-led resistance to the Dakota Access Pipeline, a partially constructed crude oil pipeline stretching 1,100 miles across North and South Dakota, Iowa and Illinois.

While an earlier alternate route for the project was rejected due to concerns that it would jeopardize the water supply for the city of Bismarck, N.D., the route currently under construction is planned to go under the Missouri River along the eastern edge of the Standing Rock Sioux Reservation, threatening to impact Lake Oahe, a vital source of drinking water for the tribe, and 8 million people living downstream. Additionally, DAPL construction has destroyed numerous sites sacred to the Sioux people, and portions of the pipeline route are on Sioux land that was never ceded to the United States.

For months, the Standing Rock Sioux Tribe's request that pipeline construction be stopped went unheeded by U.S. Army Corps of Engineers, the primary government agency responsible for permitting the project.

During this time, tribal citizens, along with allies from over 200 indigenous nations — the largest gathering of indigenous peoples in over a century — as well as non-native supporters, set up encampments along the pipeline's route. Referring to themselves as water protectors, these citizens are engaging in prayerful, non-violent direct action to protect their water and sacred sites from damage caused by Energy Transfer Partners, the company building DAPL. These

actions have been met with tear gas, attack dogs, water cannons, rubber bullets and other projectiles from law enforcement and private security contractors.

On Nov. 14, the Army Corps of Engineers announced it would delay further construction of the pipeline until after consulting with representatives of the Standing Rock Sioux Tribe, a move indigenous organizers have largely dismissed as an empty gesture. In response, Energy Transfer Partners sued the Army Corps, asserting that the project had already complied with all regulatory processes.

Activists on the ground report that despite the Army Corps' announcement, work continues on the pipeline, as do attacks on water protectors by militarized police and security personnel.

In Appalachia, communities are organizing to provide material support and their physical presence on the front line, as well as to execute solidarity actions in the region.

"I live in Ellett Valley on the North Fork of the Roanoke River, which is threatened by the Mountain Valley Pipeline," Erin McKelvy says during a phone interview conducted while she and three others traveled from Virginia to Standing Rock. "We are showing up flexible to do whatever needs to be done. In an earlier trip we helped set up a wellness center and medical infrastructure to support the encampment."

Thousands of people continue to flock to the frontlines answering a call to action issued by indigenous organizers. But according to North Carolina-based activist-medic Noah Morris, would-be supporters who show up unprepared and aloof to the importance of indigenous leadership can become a burden.

"There is a call for action targeting banks like Wells Fargo, Suntrust and many others that are invested in this pipeline," says Morris. "I'd encourage folks who don't have specific skills to offer on



the front lines to focus on doing something locally to support the struggle instead."

On Nov. 4, 80 people marched through downtown Knoxville, Tenn., delivering letters to representatives of Suntrust and Citibank, two banks that provide funding to Energy Transfer Partners, asking that these institutions sever all financial ties to DAPL. This was followed by at least a dozen solidarity actions across the Appalachian region on Nov. 15.

"The protest against the Dakota Access Pipeline at Standing Rock is an historical event. On face value it's the fight to keep our water clean and sacred sites protected, but it's also becoming a turning point, globally, for people to recognize the value of Indigenous lives and living in balance on Mother Earth," says Crystal Willcuts-Cole, a member of the Cheyenne River Sioux Tribe who lives in Big Stone Gap, Virginia.

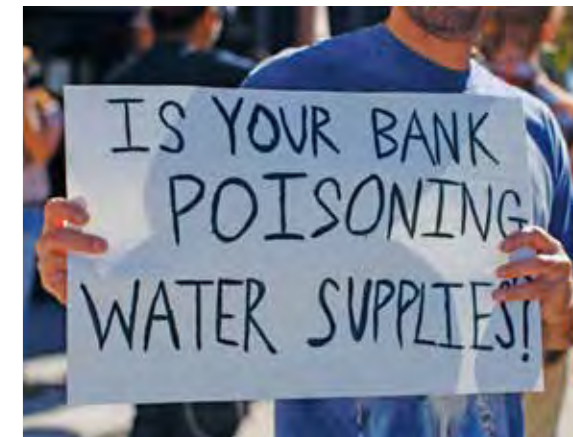
McKelvy and Morris stress that non-native allies should educate themselves about indigenous resistance to colonization, and heed the voices of indigenous organizers. "We're not

More than 200 people opposed to the pipeline rallied outside an Army Corps office in Huntington, W.Va. Photos by Chad Cordell

just fighting a pipeline. We're fighting 500 years of settler-colonialism," says McKelvy. "Support for native-led struggles, and support for non-native people-of-color-led struggles ... it's just what time it is."

On Nov. 28, the governor of North Dakota ordered the evacuation of a camp on land that indigenous leaders say is sovereign territory of the Great Sioux Nation and was never ceded to the United States, although it is currently claimed by the Army Corps.. Two other camp sites are not being evicted. As of press time, as many as 2,000 United States veterans planned to gather in North Dakota to serve as "human shields" for the activists, according to The New York Times.

To find out how to get involved with Standing Rock solidarity efforts in your community, contact actions@noDAPLsolidarity.org. ♦



A demonstrator holds a sign during a Knoxville, Tenn., event that focused on the banks funding DAPL. Photo by Lou Murrey

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Public Pushback Against Appalachian Natural Gas Pipelines

Critics cite flaws in Mountain Valley Pipeline's environmental review process

By Molly Moore

On a quiet Tuesday evening, nine individuals gathered in the small town of Elliston, Va., for a meeting of the eastern chapter of Preserve Montgomery County VA, a grassroots group formed in response to a proposed natural gas pipeline. Some attendees had known each other for years, while others shook hands for the first time. But these individuals shared at least two things in common: all lived along the steep slopes and rolling ridgelines that distinguish Central Appalachia, and all were opposed to a new natural gas pipeline slicing through their home county.

Dozens of major new gas transmission pipelines are proposed for construction across the eastern United States. Two of these, each 42 inches in diameter, are slated to cross the steep slopes and abundant streams of the Appalachian Mountains while carrying high-pressure natural gas from fracking wells in West Virginia to companies in Virginia and North Carolina. Since applications for the projects were filed with the Federal Energy Regulatory Commission — in September 2015 by the public utilities backing the Atlantic Coast Pipeline and in October 2015 by the private companies behind the Mountain Valley Pipeline — communities along the route have raised the alarm.

The Mountain Valley Pipeline would stretch from Wetzel County in northern West Virginia to Pittsylvania County along Virginia's southern border, while the Atlantic Coast Pipeline would run from Harrison and Lewis Counties, also in northern West Virginia, across Virginia to Robeson County on the southeastern edge of North Carolina.

Both would tie in to the Transco Pipeline, which extends between Texas and New York. Transco also connects to a recently approved natural gas export facility in Maryland, opening the possibility that this gas could go to overseas markets.

The Atlantic Coast and Mountain Valley Pipelines would also each require the construction of between three and four compressor stations — industrial facilities that maintain pressure throughout



Mountain Valley Pipeline, LLC is seeking an amendment to the Jefferson National Forest Plan that would reclassify 186 acres of old growth forest as a 500-foot-wide "utility corridor." This image simulates a such a corridor from the perspective of Giles High School in Giles County, Va. Illustration courtesy Roanoke Valley Cool Cities Coalition.

the system but pose concentrated health and environmental risks to nearby communities.

Common Cause

In places like Montgomery County, Va., some residents who might have different perspectives on other issues are united in their opposition to the Mountain Valley Pipeline. Community member Ellen Darden serves as the volunteer co-chair for Protect Our Water, Heritage, Rights — a coalition of local groups along the proposed route of the MVP. "[It's] totally nonpartisan," she says of the group's name. "It's really all about water, heritage and rights because those were the elements that were important to different groups and we wanted that represented."

The coalition is working alongside environmental organizations, including Appalachian Voices, the publisher of this newspaper.

Many of the residents are outraged at the prospect of losing the use of their land to gas companies or utilities while facing the likelihood of diminishing property values.

"The thing about going through properties, in addition to environmental destruction, is we're in hollers. The only flat land you have is down by the creek," says Anita Puckett, a member of Preserve Montgomery County VA. "They want to run it down by the creek because it's easier to build, so they're leasing prime farmland, garden land, house-building land."

In eastern Montgomery County, the MVP would claim a right-of-way through a flat portion of resident Jim Law's land that he intends to use as a future home-site for his granddaughters. Roughly 100 miles further east, the ACP would bisect a pasture on Carlos Arostegui's dairy farm.

Other nearby citizens cite worries about the risks that high-pressure gas

poses to their homes, farms and lives. Natural gas transmission pipelines can be constructed with thinner walls and with shutoff valves spaced further apart in more sparsely populated areas, increasing the safety risk to nearby landowners.

Environmental impacts are also of concern to many. The construction process involves heavy truck traffic, clear-cutting, and crossing and tunneling beneath waterways, which leads to sedimentation and stream disturbances. Both the MVP and ACP would also traverse fragile karst topography, a porous limestone bedrock that amplifies the risk that groundwater would be affected.

New pipelines also have implications for global climate change. Methane is released during natural gas drilling and transmission and has a climate-altering potential 86 times greater than carbon dioxide during the first 20 years after emission.

Locally, the projects would negatively

Get Involved

There are many organizations resisting the pipelines, and those listed below can also help identify local groups in your area. Learn more or submit a comment asking FERC to reject the MVP at appvoices.org/no-mvp-pipeline

Allegheny-Blue Ridge Alliance: Coalition of local groups opposed to the Atlantic Coast Pipeline
Visit: abralliance.org

Appalachian Voices: Advocacy organization fighting against the ACP and MVP
Visit: Appvoices.org Call: (434) 293-6373

NC WARN: N.C. organization working to stop the Atlantic Coast Pipeline
Visit: ncwarn.org Call: (919) 416-5077

Protect Our Water, Heritage, Rights: Coalition of local groups resisting the Mountain Valley Pipeline
Visit: powhr.org

affect viewsheds and tourism, according to the Blue Ridge Parkway Foundation and Appalachian Trail Conservancy. After months of attempting to collaborate with pipeline officials and other stakeholders to minimize risks, in November 2016 the Appalachian Trail Conservancy concluded that it is "strongly opposed to the proposed Mountain Valley Pipeline project."

In contrast, pipeline backers emphasize potential for construction jobs and tax revenue — a 2014 economic impact study commissioned by MVP anticipated that a four-year construction phase would contribute to roughly 8,000 direct and indirect jobs.

According to the ACP's website, that pipeline would generate \$8.3 million in property tax revenue in 2018, a figure that would rise and top \$30 million each year by 2025, when considering all three states. But different projections were reached in a 2016 study by Key-Log Economics, LLC, which predicted the pipeline would result in a net loss of property taxes.

The ACP has the explicit support of Virginia Gov. Terry McAuliffe, and President-Elect Donald Trump's First 100 Days platform calls for removing barriers to new energy infrastructure projects. But even with such high-profile support, the pipelines still face regulatory and potential legal hurdles.

Federal Procedure

Before breaking ground, interstate pipeline projects must first be approved by the Federal Energy Regulatory Commission. The agency is designed to be nonpartisan and independent, so instead of relying on financial support from taxpayers, it is funded by fees from the companies it regulates. Pipeline opponents nationwide have alleged that this is

continued on next page

Buckingham's Battle

Residents push back against a proposed natural gas compressor station

By Molly Moore

Ella Rose grew up in Nelson County, Va., across the James River from her current home in Buckingham County. From her dining room table, she enjoys the simple pleasure of looking out across the grassy yard, flanked by tall evergreens and watching the wildlife pass by.

But lately Rose has been concerned about the potential for a natural gas compressor station to be built on the other side of those evergreens.

Buckingham County, just east of the mountains and south of the James River, is the geographic center of Virginia. It's also become a focus in the regional push against new natural gas infrastructure.

To keep gas moving through the pipelines at sufficient pressure, the networks that transport fracked gas from the drill sites to the final destination require compressor stations. In this case, the 53,784-horsepower facility would also connect the proposed Atlantic Coast Pipeline, which would extend from West Virginia to North Carolina, to the existing Transco Pipeline.

Scores of local residents like Rose have publicly voiced their opposition to Dominion Resources' plan to install a compressor station on a 68-acre parcel of land bordered by the largely African American Union Hill community.

Compressor stations emit air pollut-

ants such as benzene, toluene, formaldehyde, nitrogen oxides, sulfur dioxides and particulate matter. According to Physicians for Social Responsibility, recent research notes consistent respiratory, neurological and cardiovascular symptoms in residents living near compressor stations. Residents have also complained of high levels of noise and offensive odors.

Cora Perkins' property also flanks the proposed site, and she says thoughts of the compressor station sometimes keep her up at night. A survivor of three open-heart surgeries, the dust kicked up by vacuuming is enough to bother her breathing.

Her five-year-old great-grandson also has breathing difficulties, and Perkins says she's concerned about whether he will be safe at her home on the family land if the compressor station is installed nearby.

Chad Oba and her husband have lived near Perkins for 30 years. Oba is also a member of Friends of Buckingham, a grassroots group opposed to the pipeline and compressor station. "I really feel as though we're getting the most polluting aspect of this pipeline," she says.

Planning Process

In October, the Buckingham County Planning Commission held its first hearing regarding a special use permit to build the facility in an area zoned for agricul-

Proposed Compressor Stations

In addition to the 53,784-horsepower facility proposed for Buckingham County, Va., compressor stations are planned for the beginning and end of the Atlantic Coast Pipeline route: the 55,015-horsepower Marts Compressor Station in Lewis County, W.Va., and the 21,815-horsepower Northampton Compressor Station in Northampton County, N.C.

According to the Mountain Valley Pipeline's most recently filed plan, it will host

Policy Act, FERC is required to prepare an in-depth analysis of the environmental impacts of significant projects like these and to assess alternatives, as well as consider public input before making a decision and issuing a final environmental



Cora Perkins worries about the health impacts and accompanying medical bills if a compressor station is sited nearby. Above, a sign near Dominion's proposed facility. Photos by Molly Moore

tural use. So many citizens arrived to speak against the compressor station that the commission devoted another meeting to the topic — and still, enough concerned residents arrived that the commission scheduled yet another meeting to allow Dominion a chance to respond.

Days before the fourth planning commission meeting, news broke that Buckingham County had entered into an "agreement in principle" with one of the county's largest employers, Kyanite Mining Co., along with Columbia Gas Virginia, that would allow Kyanite to tap into gas from the new pipeline to fuel industrial burners at the company's plant. Until that point, none of the Atlantic Coast Pipeline's gas was expected to go to local customers, a point of contention for many of the compressor station's potential neighbors.

At the next planning commission meeting on Nov. 21, the commissioners announced their decision to recommend the project along with a set of 40 conditions, eight more than in the original permit. These conditions include limits on overnight noise, additional safety measures and added consequences for

repeatedly accepting environmental assessments for new pipelines that the EPA deems insufficient. In October, the EPA issued a letter charging that FERC's review of the LeachXPress pipeline — which would carry natural gas through parts of Ohio, Pennsylvania and West Virginia — omitted significant information.

The environmental review process is intended to give the public a chance to be heard by submitting public comments or attending formal in-person FERC listening sessions. The draft environmental review for the MVP was released on Sept. 16 and the deadline for public comment set for Dec. 22. Release of the ACP's draft

FERC has been criticized by the U.S. Environmental Protection Agency for

any permit violations. The commission also recommended limiting the size of the compressor station to 55,000 horsepower and requiring that any increase in size undergo new permitting.

In the public comment period following the commission's announcement, more than a dozen community members shared their concerns.

In the next step in the process, the Buckingham County Board of Supervisors is expected to make a decision regarding the compressor station application in December or January. Although the board has supported the new gas infrastructure in the past, Friends of Buckingham and other concerned citizens intend to continue advocating against the facility.

According to the Richmond Times-Dispatch, as the commissioners and others left the Nov. 21 meeting, opponents of the compressor station began a chant: "People gonna rise like the water, gonna shut this pipeline down!"

Read more from Buckingham residents at appvoices.org/buckingham

continued on page 25

Appalachia's Political Landscape

Trump's Would-Be Coal Comeback Faces Long Odds

By Brian Sewell

Ten days after winning the White House, Donald Trump called Jim Justice, the billionaire coal company owner and governor-elect of West Virginia, and asked him to pass along a message to residents of the Mountain State: "We are going to get those coal miners back to work."

As he vetted candidates for cabinet-level positions, the president-elect made clear that the concern he showed for the coal industry during the campaign continues. Less clear is how exactly he will attempt to revive the struggling sector — or how he will confront the collateral damage to human health, the environment and the climate that could result.

Trump made bold promises throughout a campaign that often put feelings before facts. He has since seemingly waffled on a variety of stances, clouding expectations and adding to the speculation about his plans for the country.

Appalachia's Choice

It's impossible to fully parse the factors that led to Trump's win. Having never served in public office or in the military, he was described as less qualified than a "speck of dirt" by Kentucky Sen. Rand Paul, who later supported Trump. Other members of Congress claimed that Trump disqualified himself many times over during the course of the campaign.

Cast in a gold-plated veneer of populism, his speeches dredged up enmity toward Hillary Clinton and immigrants, expressed loudly by crowds chanting "lock her up" and "build the wall." Among other popular targets were President Obama and the U.S. Environmental Protection Agency, which Trump has called "an absolute disgrace" and accused of killing America's energy companies.

In Appalachia, the electorate's anxieties — whether stemming from economic, demographic or social change — were often viewed through the lens of coal and manufacturing job losses and economic stagnation. Clinton, already facing an uphill battle in the region, hurt herself even more when she told a town

hall audience, "We're going to put a lot of coal miners and coal companies out of business," referring to the transition to cleaner energy sources already underway.

The gaffe became a sound bite used to validate Trump's foreboding about coal's future should Clinton become president. Inheriting the Republican Party's mantle of ending a perceived regulatory "war on coal," Trump assured mining communities of his allegiance to the industry. When the dust settled on the day after the election, Appalachia's deep red complexion appeared again.

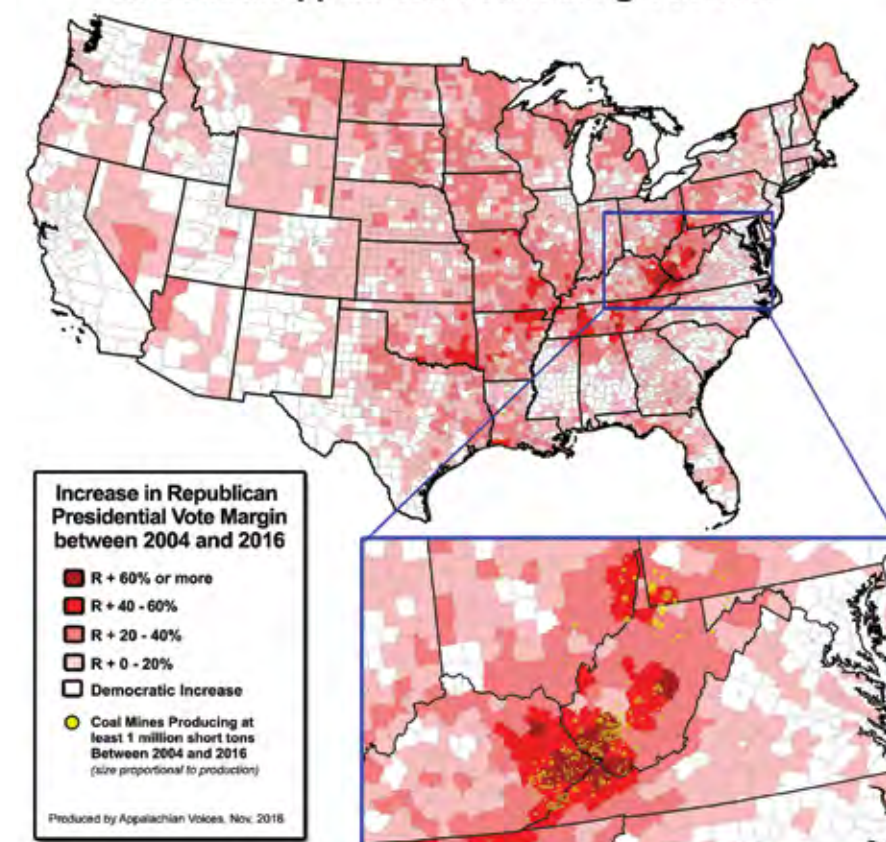
Kentucky was the first state called on election night, and it was quickly called for Trump. In Perry, Pike and Harlan, the state's top three coal-producing counties, he won an average of more than 80 percent of the votes. Elliott County saw the largest swing toward Republicans in the country — 23 points more than in 2012 — and for the first time in its history voted against the Democratic presidential candidate. West Virginia, Tennessee and North Carolina also went red.

Clinton narrowly took Virginia, as Obama did in 2012, but every county in the far southwestern corner of the state voted for Trump by larger margins than they did for Mitt Romney four years ago. Most importantly for the election's outcome was the fact that Trump's strident take on energy, manufacturing and international trade resonated beyond the coalfields and throughout the Rust Belt.

After voting for Obama twice, Ohio, Pennsylvania, Michigan and Wisconsin all flipped Republican this year. In those four states, Trump won 47 counties that Obama carried in 2012, and he outperformed Mitt Romney in dozens of Appalachian counties by 10 points or greater.

Clinton's lead in the national popular vote exceeded two million, and the counties she carried represent nearly two-thirds of the country's economic output — 64 percent compared to Trump's 36, based on county-level data compiled by the Brookings Institution. But Appalachia's choice was clear.

Between 2004 and 2016, GOP Vote Share Increased Most in Central Appalachia Coal Mining Counties



Central Appalachian coal mining counties have shifted more Republican since 2004. Sources: 2016 election data from Dave Leip's Atlas of U.S. Presidential Elections; 2004-2012 election results from the National Atlas; Mine data from MSHA, Part 50 Address/Employment files, 2004-2016.

Implausible Promises

Trump has, at various times, vowed to "encourage the use of natural gas" and "save the coal industry," apparently unaware that competition from cheap gas is the primary driver behind coal's domestic decline. He claims that rescinding regulations on fossil fuel production and use will allow wealth to "pour into our communities." But even a casual survey of Appalachia's history of resource extraction reveals how the region's wealth has been concentrated by absentee landowners and corporations.

In recent decades, the trend has been toward the industry's long-term and irreversible decline, and the pain felt in Appalachia has been especially acute. Appalachian states have lost more than 35,000 mining jobs in just five years, a decline of nearly 60 percent since the end of 2011. Over that period, job losses in the region accounted for more than

80 percent of coal job losses nationwide.

But long before the proliferation of fracking and the growing role of natural gas in the nation's energy mix, the mechanization of underground and surface mining led to lower employment even as coal production climbed. Underneath all of the rhetoric there is widespread recognition among coal and utility executives, energy analysts and some in mining communities that it is not within Trump's power to save the industry.

After meeting with Trump in May, Murray Energy CEO Robert Murray described him as "sobered" when told the coal industry cannot bounce back. A vehement critic of the Obama administration's environmental policies, Murray suggested that Trump moderate his message to avoid creating "expectations that aren't real."

Even Kentucky Sen. Mitch McConnell, one of the primary instigators of the "war on coal" narrative during Obama's presidency, lowered the bar. "We are going to be presenting to the new president a variety of options that could end this assault," McConnell said at the University of Louisville a few days after the election. "Whether that immediately brings business back is hard to tell because it's a private sector activity."

Trump's Coal Comeback

continued from previous page

Still, by rolling back environmental regulations and reducing the federal government's role in their enforcement, Trump may be able to slow the bleeding — but not without potentially opening new wounds.

Environmentalists who have cheered falling carbon emissions and coal consumption worry the Trump administration's policies could lead to long-term environmental and climate consequences that far outweigh any near-term economic gain. Under his watch, federal agencies

Local (And Global) Implications

are likely to take a more shortsighted approach to evaluating and permitting fossil fuel projects, including mountaintop removal coal mines and interstate oil and gas pipelines.

Trump says his administration will focus on "real environmental challenges, not phony ones." But in his first 100 days as president he has pledged to lift the moratorium on federal coal leases in western states and rescind regulations



Trains loaded with coal for transport. ©iStockphoto/bsauter

including the U.S. Department of the Interior's Stream Protection Rule and EPA rules limiting methane emissions from oil and gas operations. Trump also promises to kill the EPA's Clean Power Plan, which instructs states to limit power plant carbon emissions, and withdraw the United States from the 2015 Paris climate agreement, which went into effect in November.

These, and many other of the incoming administration's priorities, closely align with those of coal's proponents in Congress. Where congressional action is needed to weaken environmental rules, President Trump will likely have many allies. His administration can take other steps — including walking away from the Paris deal — largely through executive action. Even before taking office, Trump's anti-scientific stance on climate change has begun alienating key international partners like China and the European Union.

Based on recent statements, Trump's grasp on the reality of climate change remains tenuous. When asked by The New York Times in a Nov. 22 meeting if he believes human activity contributes to global warming, he said

that it "depends on how much it's going to cost our companies." America is sure to continue producing examples of climate leadership, whether in the private sector or at the state level, but there is no indication Trump's administration will do anything but harm.

"The very thought of a Trump administration overseeing national energy policy will inevitably shift more of the action to the states," David Victor, a professor at the University of California-San Diego's School of Global Policy and Strategy, wrote in a post-election essay for Yale Environment 360.

On one hand, that could lead to a greater emphasis on efforts to reduce emissions in states like Virginia, where Gov. Terry McAuliffe has established a working group to recommend carbon-cutting strategies. But it could also embolden politically powerful industries in states where regulators lack the resources or willpower to adequately enforce environmental laws.

An Urgent Task

For all the attention paid to distressed Appalachian communities

continued on next page

Coal Ash Cleanup Remains in the Headlines

By Elizabeth E. Payne

A report issued by the federal Commission on Civil Rights in September examines whether the Environmental Protection Agency is complying with its environmental justice obligations. Environmental justice refers to the enforcement of environmental laws and policies fairly, regardless of an individual's race, color or income.

The report focused largely on the agency's regulation of coal ash disposal. The commission, members of which spoke with North Carolinians living near coal ash ponds in March 2016, found that "Racial minorities and low income communities are disproportionately affected by the siting of waste disposal facilities and often lack political and financial clout to properly bargain with polluters when fighting a decision or seeking redress."

The commission made several recommendations, including listing coal ash as a "special hazard" and funding more research on the health impacts of exposure to coal ash.

In Georgia, the board members with the state's Department of Natural Resources approved the Environmental Protection Division's final coal ash disposal and storage rules on Oct. 26. "These rules are an important step forward, but they do not go far enough," said a statement from the Southern Environmental Law Center, a nonprofit legal organization.

The new rules were adopted two days after heavy metals contamination was found in the groundwater near several Georgia Power plants, according to The Atlanta Journal-Constitution.

In October 2016, Virginia Dominion Power withdrew an application to discharge wastewater from coal ash ponds

at its Chesapeake power plant into surrounding waterways. Last year, the Sierra Club — represented by the Southern Environmental Law Center — sued Dominion for alleged groundwater contamination at the Chesapeake plant.

In North Carolina, conservation groups Yadkin Riverkeeper and Waterkeeper Alliance reached a settlement with Duke Energy on Oct. 5 after two years of litigation. The settlement requires that the coal ash from the impoundments at its Buck Steam Station in Salisbury, N.C., be excavated and removed. Much of the ash will be recycled into concrete.

Lawsuits are still underway concerning the cleanup of other Duke Energy plants in the state, including Belevs Creek, whose coal ash ponds Duke intends to cap in place (see page 27)

In early October, heavy rains accompanying Hurricane Matthew led to severe flooding across the eastern part

of the state. According to United Press International, the storm caused \$1.5 billion in property damage in the state and killed at least 26 people.

Among the structures damaged in the flooding following the storm was an inactive coal ash pond at Duke Energy's H.F. Lee facility, a retired coal-fired power plant near Goldsboro, N.C. The inactive ponds at this facility contain more than one million tons of coal ash.

According to Waterkeeper Alliance, the impoundment ponds were submerged under flood water for seven days. As floodwater receded, an undetermined amount of the toxic waste product spilled into the Neuse River. A white material — comprised of fly ash particles known as cenospheres, one of many waste products from burning coal — coated the trees, banks and river surfaces.

The N.C. Department of Environmental Quality is evaluating whether enforcement actions are needed.

Settlement Reached for Jim Justice Mines

By Elizabeth E. Payne

On Sept. 30, the U.S. Environmental Protection Agency and U.S. Department of Justice announced a settlement resolving thousands of pollution violations against Southern Coal Corporation and 26 affiliated coal mining companies with operations in Appalachia.

Southern Coal Corp. and its affiliates are owned by Jim Justice, who was elected governor of West Virginia on Nov. 8.

The \$5 million settlement resolves Clean Water Act violations filed in Alabama, Kentucky, Tennessee, Virginia and West Virginia and established measures to better ensure that the companies fol-

low the law in the future. Four of the states were co-plaintiffs in the case. West Virginia was not.

"Discharging pollution from coal mining into waterways is a serious threat to clean water, and that's why EPA stepped in on behalf of communities across Appalachia," said Cynthia Giles of the EPA's Office of Enforcement and Compliance Assurance said in a statement.

According to an investigation by National Public Radio in 2014, Justice also owes \$15 million in unpaid mine safety violations and taxes. "Our analysis of federal data shows that Justice is now the nation's top mine safety delinquent," NPR reports.

Trump's Coal Comeback

continued from previous page

during the campaign, Trump has yet to address the growing need for targeted federal investments to stimulate economic activity and job opportunities in the region. Yet, when compared to Trump's promises to save the industry, neither Hillary Clinton's \$30 billion plan for revitalizing coal communities nor existing White House initiatives received much national attention during the campaign. That's not to say these ideas aren't catching on in the coalfields.

Last fall, two dozen local governments in Central Appalachia passed unanimous resolutions in support of the Obama administration's POWER+ Plan, a set of budgetary earmarks and policy proposals to bolster economic diversification in communities that have historically relied on coal. Through the related POWER Initiative, the Appalachian Regional Commission has awarded a total of nearly \$47 million to more than 70 economic development projects across nine Appalachian states.

Appalachian lawmakers in the House and Senate have also introduced

bipartisan legislation to invest in the region's economic future. One bill, the RECLAIM Act, would direct \$1 billion of existing money from the federal Abandoned Mine Reclamation Fund to clean up polluted post-mine sites and repurpose them for an economically beneficial use (see more on page 10).

A September poll conducted by Public Opinion Strategies, a Republican polling firm, found that 89 percent of registered voters in Kentucky, Virginia, West Virginia, Tennessee, Ohio, Pennsylvania and Indiana support the RECLAIM Act. By a two-to-one margin, those polled believe that elected officials should prioritize attracting new employers and transitioning the region's economy rather than fighting regulations.

If Trump plans to refocus the federal government's role in response to the frustrations of rural communities that overwhelmingly endorsed him, he will need a clear-eyed approach to the challenges facing the region. "Nobody knows the system better than me," Trump told the country upon accepting his party's nomination, "which is why I alone can fix it." Facing enormous odds, he now has a chance to try. ♦

Unique Kentucky Fish Listed as Threatened

In early October, the U.S. Fish and Wildlife Service listed the Kentucky arrow darter, a fish found only in eastern Kentucky, as threatened under the Endangered Species Act. The listing also includes protection for 248 miles of stream habitat throughout 10 eastern Kentucky counties. The darter has disappeared from approximately half of its historical range, primarily due to water pollution from surface coal mining and other extractive land uses.

The new protective status of the Kentucky arrow darter ensures that the U.S. Fish and Wildlife Service will provide oversight on the



Photo by Dr. Matthew R. Thomas, KYFWS

permitting process for surface mines that may impact the fish or its habitat. This oversight will help protect this small, colorful fish and other species that may rely on similar habitat, which could affect overall ecosystem and community health. — Erin Savage

Lawsuit Filed Over Black Lung

A lawsuit filed on Oct. 28 against The Johns Hopkins Hospital in Baltimore, Md., alleges that Dr. Paul Wheeler, a radiologist at the hospital, intentionally misread the x-rays

of hundreds of coal miners with black lung disease. Because of his connection to this well-respected institution, his diagnoses overruled those of other doctors and lead to the dismissal of more than 800 benefit claims for miners with the disease. — Elizabeth E. Payne

Pipeline Pushback

continued from page 21

environmental assessment is expected in December 2017.

Residents across the country can submit comments for interstate pipelines like MVP and ACP. But the effectiveness of public comments also depends on how thorough the initial assessment is — for instance, if the draft doesn't describe how pipeline builders plan to mitigate landslides, it's harder for local residents to weigh in on whether that plan is sufficient. Attendees at FERC's seven public listening sessions held along the MVP route in November stated that the draft environmental statement was "woefully inadequate."

Incomplete Review

In October, the nonprofit law firm Appalachian Mountain Advocates submitted a letter to FERC outlining shortcomings in the Mountain Valley Pipeline's draft environmental impact statement. The 15-page letter, sent on behalf of 27 conservation and community groups, called on the agency to revise or supplement the draft and questioned whether the MVP was even necessary.

According to Ben Luckett, staff attorney with Appalachian Mountain Advocates, FERC published an incomplete review. "FERC even acknowledges it still needs information about impacts on

drinking water sources, as well as important streams and wetlands," he stated in a press release. "The public must have access to this crucial information if its review of FERC's analysis is to have any meaning."

In its application, Mountain Valley Pipeline, LLC, stated that it has secured contracts for the two billion cubic feet of pressurized natural gas it would transport each day. Yet separate studies by the Institute for Energy Economics and Financial Analysis, commissioned by Appalachian Voices, and by Synapse Energy Economics, Inc., both concluded that pipelines carrying gas from the Marcellus and Utica shale formations are being overbuilt and that there is enough pipeline capacity to meet demand until 2030.

The Appalachian Mountain Advocates letter also points out that some information — such as surveys for a proposed route change — can be omitted until the end of the comment period, and even more information can be withheld until after FERC grants a certificate of approval. These components include plans for avoiding active mines, mitigating landslides, installing permanent culverts and permanently filling waterbodies and wetlands along the route.

Speaking Out

FERC's seven listening sessions on the MVP were held in West Virginia, Virginia and Pennsylvania during the first

Tennessee Announces Clean Energy Grants

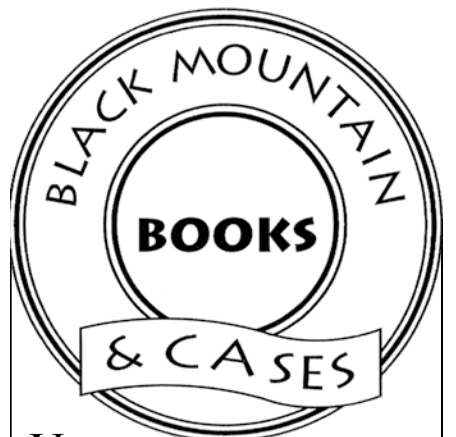
In early November, the Tennessee Department of Environment and Conservation announced that it is rolling out \$1.5 million in clean energy grants across the state. The funding, which comes from a 2011 Clean Air Act Settlement with the Tennessee Valley Authority, will be available to local governments, utility boards and other state entities through the Clean Tennessee Energy Grant Program for projects that support clean energy solutions, energy efficiency and conservation, or improve air quality. Preference will be given to projects in counties that are designated as distressed and counties that have not previously received a clean energy grant. Pre-proposals are due by Feb. 28, 2017. — Lou Murrey

Alabamians Gain Path to Challenge Mines

Following a settlement in early November, Alabama residents can challenge mining operations in their state without facing the threat of costly fees. According to federal law, citizens can participate in the permit process and raise challenges when environmental violations are suspected.

Before the settlement, Alabama law allowed the state's Surface Mining Commission and coal mining companies to charge their lawyer's fees to the citizen who raised a complaint, even when a case had merit.

The lawsuit resolved by this settlement was filed by Black Warrior Riverkeeper, a nonprofit environmental group, so that citizens could make good faith challenges without fear of prohibitive fees. — Elizabeth E. Payne



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Repurposing Virginia's Abandoned Coal Sites

"Healing Our Land, Growing Our Future," a groundbreaking new report, was released on Nov. 1 by Appalachian Voices, Coal Mining Engineering Services, LLC, and Downstream Strategies.

The report imagines a new future for seven counties in far Southwest Virginia. Its authors propose forward-thinking projects — such as solar energy and organic farms — for 14 abandoned mine lands sites that could be possible if Congress passes the RECLAIM Act.

The act is a bipartisan piece of legislation that would invest \$1 billion to revitalize the economies of areas historically impacted by the coal industry.

"There's enormous momentum building at the local level to reclaim these lands for a more sustainable economic



future, but we need federal investment to bring that change swiftly," says Adam Wells, our Economic Diversification Program Coordinator. Read more about the report beginning on page 10.

Reclamation

continued from page 12

According to Axel Ringe, the conservation chair of the Tennessee Chapter of the Sierra Club who participated in the site inspections, the group confirmed that the regrading had been done properly, took water samples from sediment ponds and checked that the vegetation species and survival rates met the reclamation plan.

"The purpose of doing this is to get the local community people involved in the process, because they're the ones that are most directly impacted by the mining," Ringe says.

Carol Judy, a local community member, participated in the inspection because of her desire for clean water. "I've always felt like your water data is trackable, and it's factual," she says. "And it gives a body a way to look at long-term water quality impacts through several different lenses."

Following the inspection of the

Claiborne mine sites, the groups submitted their concerns to the Office of Surface Mining Reclamation and Enforcement. But as of press time in late November, they had not heard back on the status of the bond release.

Looking Ahead

After more than half a century of surface mining, few in the coal-bearing regions of Appalachia are unaffected by reclamation issues.

A resident of Dickenson County, Va., who asked not to be named because he lacked permission from all landowners to speak about the site, described his frustration after working unsuccessfully for 10 years to get the effects of mining on his property cleaned up.

Remembering how his land was once used for pasture, and dreaming of how it might one day be used for wind or solar energy generation, he says he just wants something to pass on to his grandchildren.

"It's not too much," he says, "but at one time it was beneficial. Now it's a wasteland."

Southwest Virginians Challenge Mine

Six-year-old Levi Marney was the first to speak out against the proposed Doe Branch mountaintop removal coal mine near Haysi, Va., at a public meeting on Nov. 7.

"God gave us the water so we can stay clean, and so we can drink it," he said. "I don't want poison in the water."

Appalachian Voices was proud to stand beside him and the other community members who attended the meeting and addressed their concerns about the mine to the Virginia Department of Mines, Minerals and Energy.

The 1,100-acre surface mine is proposed by Contura Energy, a new mining company that was formed when Alpha Natural Resources emerged from bankruptcy, and threatens to discharge sediment and other mining-related pollutants into the Russell Prater Creek.

This meeting focused on a potential renewal of the operation's water pollution discharge permit.

Changes at Appalachian Voices

We are delighted to welcome Meredith "Mayzie" Shelton as our new Distribution Manager for The Appalachian Voice and Operations and Outreach Associate. Mayzie is an herbalist and mother of three dedicated to expanding access to clean water, sanitation and nutrition. She recently returned from a project advancing these goals in The Democratic Republic of Congo.

Mayzie is taking over for Lauren Essick, who held this position before becoming our N.C. Energy Savings Outreach Coordinator. Lauren graduated from Appalachian State University where she focused on sustainable planning and community development. She is now working with our Energy Savings team to promote energy efficiency programs for low-income families in the region.

We also welcome Lydia Graves as our

These permits allow facilities such as the proposed mine to legally release specific amounts of various pollutants into public waterways like the Russell Prater Creek and the Russell Fork River.

The state approved the initial discharge permit for the Doe Branch mine back in 2012. But, as several individuals in attendance pointed out, the U.S. Environmental Protection Agency has maintained an objection to the project from its outset.

The Doe Branch Mine has already received the other permits it needs. The EPA objection is one of the only things currently preventing the mine from moving forward.

"Many members of our family are in coal mining, but we know the future of Dickenson County is in tourism, and it's in taking care of our environment better than we have in the past," said Gail Marney, Levi's grandmother.

first Southwest Virginia Solar VISTA. She will help advance solar power in the region. Lydia is from Bristol, Va., and graduated from Appalachian State University, where she studied sustainable development. Before joining us, Lydia worked with Sustain Abingdon on the Solarize Abingdon initiative, a program designed to make going solar simple and affordable for homeowners and businesses.

It is also time to say farewell to Eliza Laubach, who spent two years with us, first as an AmeriCorps Outreach and Communications Associate and then as our Energy Savings Community Outreach Associate and a Contributing Editor of The Appalachian Voice. On her final day, she helped run the French Broad Energy Forum (see next page). We'll miss her thoughtfulness and passion for justice and wish her all the best for the future.



Lauren Essick



Lydia Graves



Eliza Laubach



Meredith Shelton

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French Broad Energy Forum is a Success

On Nov. 16, nearly 60 citizens attended an energy efficiency information session for members of the French Broad Electric Membership Corp., an electric cooperative that serves six rural counties in Western North Carolina and East Tennessee.

They came out to learn about and discuss how on-bill financing — a method that makes paying for home energy efficiency improvements more affordable — could improve their lives and local economies.

The forum brought together members of the co-op, local government and economic development representatives, community service agencies, numerous businesses and a regional development council. It was sponsored by the North

Carolina On-Bill Working Group, with Appalachian Voices, Community Housing Coalition of Madison County, and Southern Reconciliation House (Yancey County) serving as co-sponsors.

Speakers included: Eliza Laubach, who was serving her last day as our Energy Savings Outreach Associate; Rory McIlmoil, our Energy Policy Director; representatives from Neighbors in Need, Community Housing Coalition and Southern Reconciliation House; Wesley Holmes of the Southeast Energy Efficiency Alliance; John Kidda, President of reNew Home Inc.; and Sam Hutchins, French Broad's Member Services Manager.

The forum showed how hard these



communities work to assist residents and businesses who struggle to pay their energy bills, need help with basic home repairs, or are looking to gain a foothold as a new local business.

Most of all, it showed just how strong the public support is across the French Broad co-op area for comprehensive on-bill energy efficiency financing, which could save residents as much as 10 percent on their energy costs while benefiting their electric co-op as well.

Coal Ash Water Pollution Permit Disputed

On Nov. 15, Appalachian Voices' North Carolina team attended a wastewater permit hearing for the Belwus Creek Steam Station to help local community members push for stricter water pollution requirements.

The permit sets pollutant limits that Duke Energy must follow when draining contaminated water from its 250-acre coal ash pond into the Dan River. Duke announced in November that it intends to cap the coal ash in these impoundments in place rather than removing it. Syphoning off the water from the pond is a part of this process.

Local residents in attendance objected because the permit would not require limits for many toxic components of coal ash such as lead, mercury or arsenic, does not use the best available technology for treating the wastewater, and would only require monthly test-

ing when the most concentrated wastewater is released. The permit would also legalize dangerous seeps responsible for groundwater contamination and allow Duke to use Little Belwus Creek, which runs underneath the coal ash pond, as an effluent channel.

The residents stated that the permit does not protect the area's drinking water, recreation and tourism. They also raised concerns because the hearing was scheduled during another important town meeting of interest for many impacted residents. Nevertheless, there were over 100 residents from across Stokes County in attendance.

As a result of the hearing and internal decisions, the state's Department of Environmental Quality has revised the Belwus Creek wastewater permit and will hold a hearing for the revised permit in December.

Daylight Savings Challenge

To get through the dark evenings since Daylight Savings Time ended on November 6, people are turning on more lights for longer periods of time. Unfortunately, this means that their energy use and electricity bills go up. Winter heating costs combined with increased lighting use can make it even harder for some families to afford their electricity bills.

To make this winter a little easier, Appalachian Voices devised the Daylight Savings Challenge. Our Energy Savings team partnered with student volunteers from Appalachian State University to distribute almost 100 energy efficient LED light bulbs to six seniors across Watauga County, N.C. The new LED bulbs, donated by Hospitality House, last longer than traditional incandescents and use 75 percent less energy, according to the U.S. Department of Energy. All together, the participants should save at least \$280 a year on their energy bills, which is equivalent to about 1.75 tons of coal. Over five years, that amounts to a savings of approximately \$1,400 and almost nine tons of coal!



ASU student Kaytlin Hester-Newmann installs an LED light bulb.



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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During the "polar vortex" in February 2015, Fall Creek Falls, on Tennessee's Cumberland Plateau, became blanketed in ice and a rare ice cone formed at the waterfall's base. Photographer Cara Alexander is also a ranger at Fall Creek Falls State Park. "I adore the relative peace of the park in the winter and the beauty that most people don't get to see," she says. "Summer is always hectic and full of people, and the wintertime is rejuvenating." To see more of her work, visit caraalexanderphotography.com.

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