

Measuring the Health of Appalachia



Breaking Boundaries in Regional Art Mountaintop Removal: Here and Now



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#### A Note from Our Executive Director

At first, I couldn't believe what our Appalachian Water Watch team had discovered earlier this year: almost 28,000 violations of the Clean Water Act by a single coal company in eastern Kentucky. It appeared to be the most extensive incident of noncompliance in the law's 42-year history.

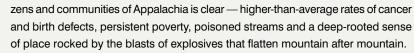
Frasure Creek Mining had duplicated or otherwise falsified hundreds of the water pollution reports it is required to send to the state. And over the course of a full year and a half, state regulators apparently failed to notice.

It's shocking — but alas, not a surprise. This level of callous disregard for the laws meant to protect our health, safety and natural heritage is all too common among Appalachia's coal companies, regula-

This wasn't the first time we caught Frasure Creek Mining falsifying pollution records and found the state apparently asleep at the switch. In 2010, Appalachian Voices discovered 9,000 violations by the company over a two-year period. We and our allies in Kentucky took legal action, but the state proposed settlement deals with the company amounting to little more than a slap on the wrist.

In light of the latest spate of violations, in November we and our partners served a new notice of our intent to sue Frasure Creek. A week later, in a major victory, a Kentucky judge struck down the earlier settlements, noting that the company's systemic violations almost certainly caused "degradation of the environment" and the state's weak actions created a "regulatory climate in which the [state agency] sends the message that cheating pays."

As coal companies continue to benefit from a widespread failure to enforce the law, the toll on the citi-



The Kentucky ruling is a victory for the waters and communities of Appalachia, but as our latest revelations indicate, there is more work to be done. The fight for justice continues

For the waters,



Tom Cormons, Executive Director

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

#### **Wandering Storytellers**

Dec. 29, 7-8:45 p.m.: Appalachian storyteller Octavia Sexton. Open-mic opportunities. \$5 donation. Farish Theater, Lexington Public Library, Lexington, Ky. Call (502) 223-4523 or visit kystory.org/progs-and-activs/wandering.shtml

#### **First Day Hikes**

Jan. 1: More than 400 hikes nationwide. Find First Day Hikes near you at your local state park website or americanhiking.org/first-day-hikes

#### **Coalfields and Molasses Exhibit**

Jan. 5-Feb. 27: Carnegie Hall will display West Virginia's New Deal-era photography and explore early 20th century labor strife in the coal mines. Opening reception Jan. 16, 5-8 p.m., featuring "An Evening of Coal Mining Songs." Book club discussion with Storming Heaven author Denise Giardina, Feb. 12. Matewan film screening Feb. 23, 7 p.m. Free. Lewisburg, W. Va. Call (304) 645-7917 or visit carnegiehallwv.com

#### Overburden: Stripping Away the **Mountains and Its People**

Jan. 8, 12 p.m; Shawn Skabelund will discuss his art exhibition exploring "changes that humans make on the land and cultures of a given area." Free. On display Jan. 11-Feb. 15

at Doris Ulmann Gallery, Berea College, Berea, Ky. Call (859) 985-3530 or visit berea.edu/art/ doris-ulmann-galleries

#### **Old Christmas at Natural Tunnel**

Jan. 10, 5-7 p.m.: Rediscover traditional Appalachian Christmas celebrations with period dressed re-enactors, snacks and caroling. Free. The Blockhouse, Natural Tunnel State Park, Duffield, Va. Call (276) 940-2674 or visit dcr.virginia.gov/state-parks

#### **Volunteer Eagle Survey**

Jan. 10, 10 a.m.-2 p.m.: All birder levels welcomed to watch the skies and waterways for golden and bald eagles throughout the park. Free. Pipestem Resort State Park, W. Va. Call (304) 466-1800 or visit wvstateparks.com/calendar.html

#### **Fee Free National Park Entrance Day** Jan. 21: Martin Luther King Day celebrated with

fee free national park entrances and commercial tours. Visit: nps.gov/findapark/feefreeparks.htm

#### **N.C. Waterfowl Conservation Stamp Competition**

Jan. 23: Artist entry deadline for the 2015-16 duck stamp. Print and stamp sale proceeds support waterfowl habitat conservation. \$7,000 prize, must be 18+ to enter. Visit: ecwguild.com/ecw-arts-festival/ north-carolina-duck-stamp-competition

#### 25th Annual Wilderness Wildlife Week

Jan. 24-31. 8 a.m-7:30 p.m.: Celebrate the Great Smoky Mountains National Park with exhibits, workshops, music and nature walks. Free. LeConte Center, Pigeon Forge, Tenn. Call (865) 453-8574 or visit mypigeonforge.com/events

#### **Virginia Conservation Lobby Day**

Jan. 26, 8:30 a.m.-4 p.m.: Promote sustainable environmental decisions with the Virginia Conservation Network. Volunteers will lobby legislators after a briefing on legislative proposals. \$20, includes lunch. Richmond, Va. Registration required. Visit vcnva.org

#### **Cast Iron Cookoff**

Jan. 30 & 31: Teams of amateur cooks paired with the region's finest chefs compete to create innovative dishes using native ingredients and traditional cast iron cookware. Local Appalachian dinner and dancing to follow Saturday awards ceremony. Hosted by the Collaborative for the 21st Century Appalachia. \$150 entry, access to Friday team meeting. \$40, Saturday event only. Marriott Town Center, Charleston, W. Va. Call (304) 610-3180 or visit castironcookoff.org

#### **Artful Habitats for Beneficial Insects**

Jan. 31, 1 - 3 p.m.: Learn how to manage

garden pests by attracting beneficial insects, and build an artful insect hotel to take home. \$30/member, \$40/non-member, University of Tennessee Gardens, Knoxville, Tenn. Call (865) 974-7151 or visit utgardens.wildapricot.org/ UTGardensEvents

#### **Last Mountain Film Screening**

Feb. 1, 6:30-9 p.m.: Through a West Virginia community's fight to protect their mountains, this documentary exposes the harmful impacts of coal on health, biodiversity, the economy and the climate. Screening followed by a short question and answer session with sponsoring organization, Appalachian Voices. Snacks provided. Free. Great Hall of the Living Learning Center, Appalachian State University, Boone, N.C. Contact Kimber at (828) 262-1500 or kimber@appvoices.org

#### **Business of Farming Conference**

Feb. 14, 8 a.m.-5:30 p.m.: Attend workshops and network with area farmers, agricultural professionals and marketing specialists. Friday afternoon intensive offsite workshops, 12-4 p.m., \$15-30. Saturday conference rates vary, breakfast and lunch included. The Sherrill Center. UNC Asheville, N.C. Visit: asapconnections.org/ events/business-of-farming-conference/



**Environmental News From Around the Region** 

## Plans Map a Future for Appalachian Forests

## George Washington Forest Plan Unveiled

By Kimber Ray

After more than 50,000 public comments and seven years of debate between citizens, government officials, environmentalists and the energy industry, the U.S. Forest Service has released a new management plan for the 1.1-million acre George Washington National Forest. The plan will guide management in the forest, located primarily in Virginia, for the next 10-15 years.

A majority of the comments called for officials to prevent oil and natural gas drilling in the forest, which contains the southern portion of the Marcellus Shale formation. Officials responded by banning new drilling leases, but lacked authority on about 167,000 acres where landowners maintain private mineral rights, and on another 10,000 acres that were previously leased for drilling management plan allowed oil and gas leasing on 995,000 acres.

address the heightened risk of forest fires posed by climate change by increasing the number of annual prescribed burns, while stream protection buffers are extended from 66 to 100 feet. The plan also increased the number of acres deemed suitable for timber harvest from 350,000 to 452,000, endangering what environmental group Wild Virginia estimates to be 23,000 acres of potential habitat for the endangered Indiana Bat. A recommendation in the plan to increase wilderness areas from 40,000 to 70,000 acres and create a 90,000-acre National Scenic Area on Shenandoah Mountain must gain further federal approval.

development. The 1993 version of the

Additional provisions in the plan

## **Stars Twinkle in Calhoun County**

As a child in the Sandhills of western Nebraska, Dan Sommers was familiar with the annual

crane migration and the birds' distinct calls. It wasn't until moving to Chattanooga more than

20 years later that he heard their sound again. This image was taken at Hiwassee Nature

Preserve in November 2012. View more of his work on Flickr.com with the username Dan738.

By Barbara Musumarra

In West Virginia's rural Calhoun County, which boasts some of the darkest skies across the eastern United States, a proposed starpark will allow professional and amateur astronomers to study the night sky with minimal light pollution.

Although locals have long appreciated the unobstructed views provided by the Calhoun County Park's mountain vantage point, the park is relatively unknown to professional stargazers. When the Appalachian Regional Commission provided funding for the University of Knoxville in 2010 to help five underdeveloped counties, locals began to evaluate how they could use the park to encourage tourism. University researchers collected 300 survey responses from amateur astronomers reflecting interest in the endeavor.

Many gathered at the proposed

Albout the Cover

starpark site in late September to evaluate the potential of upgrading the park to meet requirements for the International Dark Sky Association's gold rating. Planned improvements include installing restrooms and electric power, which is necessary for professional, high-powered telescopes.

"Job creation is a goal of the project," states Dr. Tim Ezzell, lead researcher for the initiative and director of the Community Partnership Center at the University of Knoxville. Plans to include community members in local workforce development programs are in the works.

"It's a fascinating opportunity for a really poor rural county off the beaten path," says Calhoun County official Bob Weaver. Over the years, Weaver has observed astronomers filtering in by the thousands, a trend he hopes will continue to bolster the community's tourism.

## Draft Plan for Nantahala and Pisgah National Forests Stirs Debate

Bu Travis Hall

The U.S. Forest Service drew criticism from many western North Carolina conservationists in November when it announced a draft plan that will guide the future of the Pisgah and Nantahala National Forests for the next 15 years.

Environmentalists balked at a proposal within the plan that would open nearly 700,000 acres — roughly 70 percent of the contiguous 1 million acres that make up the Pisgah and Nantahala National Forests — to large-scale timber harvesting operations.

"There are many places of significant value that go unrecognized in the current plan," says Josh Kelley, a field biologist with the Western North Carolina Alliance. "Areas that contain old-growth forests, rare species habitat, and have high recreational value are being lumped into the same categories as areas that do not have those qualities."

Stevin Westcott, a public affairs officer with the U.S. Forest Service, says that "scientific forestry" will always be the basis for any permitted timber harvests. He points out that, while the overall acreage available for timber harvest has increased in the current draft plan, harvesting is down by 35 percent over the last 25 years. He also says that logging will never be allowed on rocky

outcroppings or near streams.

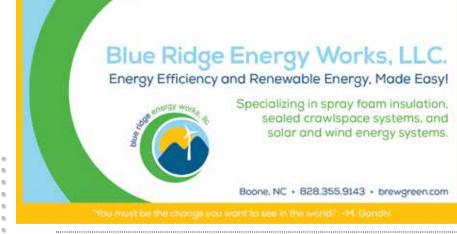
Kelley also expressed concern about the state of oil and gas regulations in the two forests.

"The gas boom facilitated by fracking has created a demand for more energy pipelines, and national forests are often easier and cheaper to deal with than hundreds of small landowners," he says. "The forest plan needs to include protections against poorly planned and cited energy development."

The current plan does not anticipate fracking or natural gas pipelines, but the revision process will include a new survey of the forests for oil and gas.

All national forests have governing plans that are updated periodically. Nantahala and Pisgah are among the first national forests to conduct their planning process under a new policy that was established in 2012. The Forest Service hopes to complete the plan in 2016. A comment period on potential wilderness areas runs through the middle of December, and several plan alternatives will be released for review

To offer input, contact the Forest Service at NCPlanRevision@fs.fed.us, or mail comments to National Forests in North Carolina, Nantahala-Pisgah Plan Revision, 160 Zillicoa St., Suite A, Asheville, N.C. 28801.



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## Scant Action One Year After Elk River Chemical Spill

By Kimber Ray

Roughly one year after a coalprocessing chemical spill by Freedom Industries contaminated the drinking water of more than 300,000 West Virginia residents, cleanup of the site remains incomplete and disciplinary and preventative action by state and federal officials has been minimal. Even in November, a poll by local news station WSAZ found that only 50 percent of affected residents were drinking their tap water, compared to 81 percent before the spill.

Eight days after the spill, Freedom fund a full cleanup of the spill site. Industries filed for bankruptcy and, by April, company executives registered an identical company, Lexycon LLC, which in May was granted approval to purchase former Freedom properties.

Federal fines against Freedom total \$11,000, and a \$3 million settlement between Freedom Industries and residents affected by the spill was finalized in September using money from the company's insurance policy. With the added expense of almost \$2 million in legal fees, Freedom claims to now lack capacity to

nessee Wildlife Resources Agency

partnered to select the site and prepare

Although historically abundant in

the stream for the brook trout release.

southern Appalachia, brook trout popu-

lations drastically declined during the

twentieth century when habitats were

damaged by problems such as poor

logging practices, acid rain and the

introduction of non-native trout.

A proposed agreement with the West Virginia Department of Environmental Protection this November would lessen Freedom's cleanup responsibility. Under existing orders from the agency, the company must remove all detectable contamination from the spill site but, if allowed to enter the agency's voluntary toxic cleanup program, cleanup levels can be based on potential risks of human exposure. This risk is disputed due to a lack of scientific studies on health effects of the spill chemicals. Public

comments on the proposal will be accepted until Dec. 17.

West Virginia American Water, the private water utility which serves residents affected by the spill, is under investigation by state authorities for potentially allowing customers to drink contaminated water due to inadequate emergency planning and response. Fourteen businesses and individuals have sued the utility and additional companies connected to the spill, including the chemical manufacturer, and a hearing is scheduled for Sept. 15, 2015. A federal grand jury investigation against Freedom Industries is ongoing.

## **Brook Trout Brought Home**

Bu Barbara Musumarra

Little Stoney Creek in the Cherokee National Forest is once again teeming with Southern Appalachian brook trout. This fall, the Tennessee Aquarium Conservation Institute released 1,100 of the fish into their native waters.

Researchers will track the trout's growth and survival rate through data collected by a coded wire tag that was injected into each fish prior to release.

**Kentucky Town Earns Hiking Distinction** 

The U.S. Forest Service and the Ten- By Kimber Ray

State tourism maps will feature a new destination now that Olive Hill, located in Carter County, is Kentucky's fourth official Trail Town. The honorary ceremony held this November marked more than two years of collaboration between citizen volunteers and city and state park officials on efforts to enhance the town's outdoor and downtown assets, including

a new 8.3-mile trail that joins Olive Hill to Carter Caves State Resort Park.

The Kentucky Trail Town Program, created in 2012, supports more diverse economies by encouraging towns to connect to state park trail systems. Designated towns qualify for grant assistance and are also promoted in highway signage, visitor guides and online.

Visit: kentuckytourism.com/outdoor-adventure/sites-services

### **WV Wetlands Welcome Extra Funding**

By Barbara Musumarra

West Virginia wetlands received a flood of good fortune, thanks to a \$700,000 grant awarded to the state Department of Natural Resources this October.

The Wetland Program Development Grant, given by the U.S. Environmental

Protection Agency, funds projects to evaluate and improve wetland health. Of the six grant recipients in the Mid-Atlantic, the West Virginia environmental agency received the largest sum, and aims to use the money to develop a protocol for

assessing wetland health, and to support

protection and restoration efforts.

## **Counting Birds, A Holiday Tradition**

By Kimber Ray

Tens of thousands of birdwatchers will take part in the world's oldest citizen science survey this winter during the Annual Audubon Christmas Bird Count from Dec. 14 to Jan. 5. This 115-year-old tradition invites teams of new and seasoned birders to join a

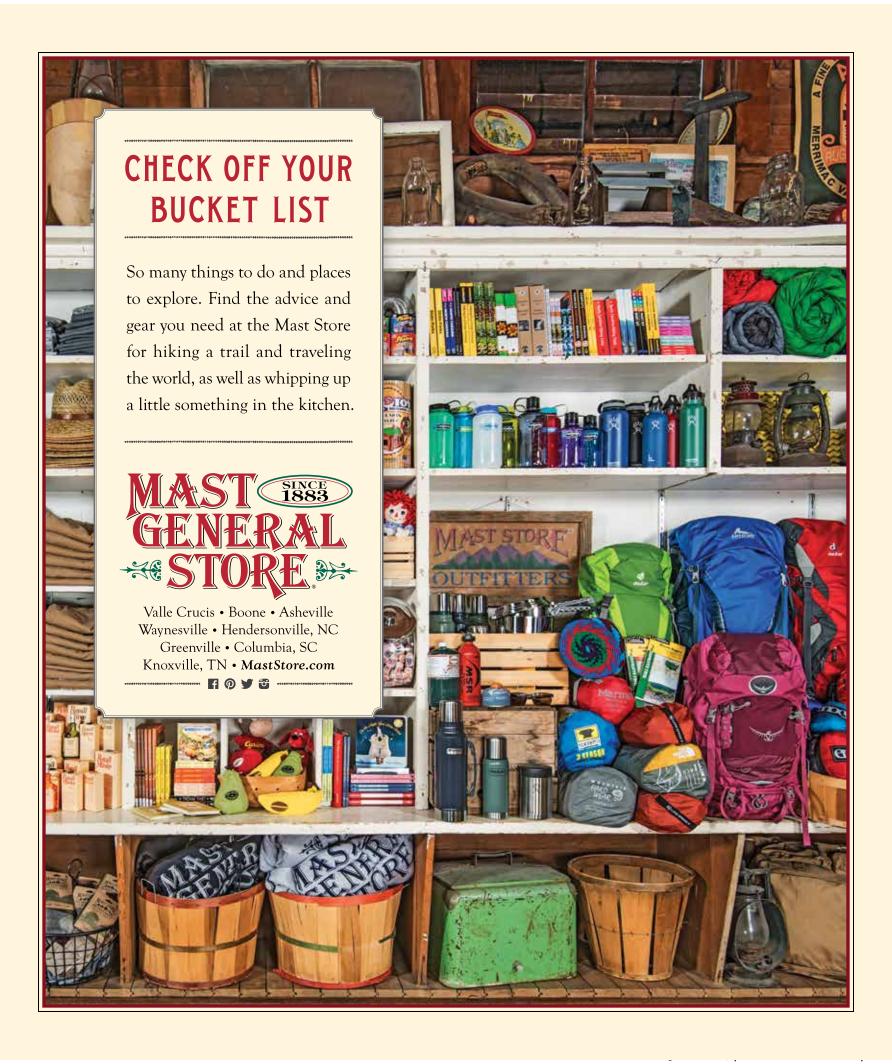
friendly counting competition to help assess bird population health across the Americas. The data, compiled in The Audubon Society's database, provides an important resource for researchers investigating bird conservation.

Visit: birds.audubon.org/christmas-bird-count



www.mikewindhomsoldwood.com • oldwood@mikewindhom.com • 276.744.2505





Remembering an Environmental Warrior

enny Kohm was an activist who inspired countless people, from the Arctic Lto Appalachia, to stand up and exercise their right to protect the land and communities they love. Below are just a fraction of the tributes already made to this hero known by many as "The Chief." As renowned writer Terry Tempest Williams so eloquently stated:

"He was singular in his wit and wisdom for the wild. Passionate, smart, and humble, he touched all of us ... His legacy is love."

## The Book of Lenny

In September, Appalachian Voices lost a dear member of our family. Lenny Kohm worked at Appalachian Voices for nearly 13 years, during which time his wisdom and deep understanding of what moves people to take action became woven into the fabric of the organization.

Lenny came to Appalachian Voices in 2001 after 15 years working to protect the Arctic National Wildlife Refuge from oil drilling. I had taken the job of executive director a week earlier and had very little idea of how to go about running an environmental campaign, much less an organization. Fortunately, Lenny was my guide and mentor, as he was for all of the staff of Appalachian Voices in the subsequent years.

to drink bourbon, or so he said. His real intention was to begin teaching me the fundamentals of working for out front. justice and protecting the environment.

"Strategy," Lenny explained, "is figuring out what victory looks like and working backward from there."

Lenny had little patience for tactics that were not part of a plausible path to victory. "Never let your tactic become your goal," he often warned. And while he had nothing against conferences or demonstrations, anyone who suggested holding one with Lenny present had to be prepared to answer his inevitable question, "What comes out the other side?"

Lenny also told me that to be really valuable in this movement, you need to learn how Congress works, as well as how to move legislators, which in his view was not done by appealing to their hearts

Lenny was an activist, a teacher, a philosopher, a warrior, a mentor, a friend. He changed the way I thought about activism and offered me guidance when I needed it over the years. He was always generous with his trustworthy wisdom, but perhaps the most enlightening thing Lenny ever said to me was during an interview we did with him back in 2008:

"If everyone woke up and said, 'You'll have to go through me, too' then we've already won.'



Lenny Kohm devoted nearly 30 years of his life to helping people find and use their voice for change. Above, talking to an attendee at a citizen lobby training in Washington, D.C.,; at left, on a river in the Arctic Wildlife Refuge, Yukon Territory.

or to logic, but by going to their constituents and

Lenny was skeptical of any strategy that did not involve "boots on the ground," by which he meant going out to speak directly with the constituents of the decision-maker you are trying to move. Most of The first week, Lenny invited me over to his house all, he wanted no part of any campaign that failed to put people who are directly impacted by the problem

> But as much as he embodied and cherished his role as mentor, Lenny was never pedantic. He was

"When you work for justice," Lenny would say, "you have a kind of magic. Your job is to go out and give that magic away. You can't try to hoard it or it disappears, but if you keep giving it away you never

Lenny also said that the step in any campaign is to appoint the victory party committee. This was his way of saying not to bother starting

I will miss you, Lenny. Thank you for helping me recognize and embrace my own personal power, for reminding me that it's ok to laugh even when the battle is raging around us, and for inviting me to sit at the "grown-ups table" of environmental activism.

They will have to go through me, too.

- Parson Brown, co-founder and director of Topless America

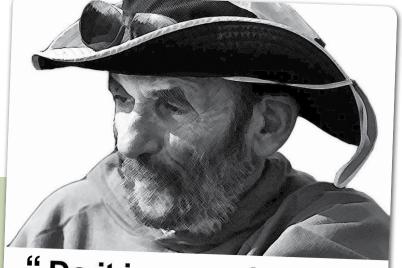
a campaign unless you're going into it with a commitment to do what it takes to win.

Lenny had many wise and witty sayings we called "Lennyisms" that are now woven into the fabric and lore of Appalachian Voices.

"You've got to get outside of yourself," Lenny would say. "You've got to go to where people are at." And most memorably, "Do it in a good way."

"Never lobby without a hangover" was one of the more interesting Lennvisms. What he meant is that when you go to the capitol your most important job is

Continued on next page



"Do it in a good way..."

- Lenny Kohm,1939-2014

My favorite thing about Lenny was that he wasn't just about the land, he was equally about the people. When asked what he did for a living, he would always respond, "I'm in the people empowerment business."

~ Brian O'Donnell, executive director, Conservation Lands Foundation

Armed with his belief in the power of ordinary people to change the world, Lenny inspired thousands across the country to take time in their lives as mothers, fathers, doctors, electricians. or teachers to stand up for our common natural heritage, from the Arctic to Appalachia. He was and is — a legend among activists.

~ Tom Cormons, executive director, Appalachian Voices

I am immensely grateful to have known and learned from this giant spirit of a human being and activist, and will always remember his mantra:

"We have to win, it's not an option.

> ~ Anna Jane Joyner, Here Now campaign consultant, Purpose

## An Advocate for the Wild Places

By Brooks Yeager, Former Deputy Assistant Secretary for Environment and Development at U.S. Department of State

Lenny Kohm was an extraordinary organizer and advocate for the wild places of the earth. In mid-life, he transited from a career in jazz drumming to photography, wandered to Alaska, and spent two seasons taking hundreds of marvelous and evocative pictures of the Arctic National Wildlife Refuge and the Gwich'in people who subsist there.

Recognizing that the refuge he had come to love and that the caribou which fed the Gwich'in were both threatened by oil development, he spent the next decade driving from hamlet to hamlet in the lower-48, showing his slideshow to anyone who would listen, at public libraries, colleges, and churches. He was always accompanied, in these forays, by a member of the Gwich'in Tribe.

At a time when Congress was regularly floating proposal after proposal to drill the refuge, his effort was strategic: he always knew which were the swing districts, and which local congressmen were in need of additional backbone from home. He covered most of the United States in what can only be described as a broken-down jalopy, because, until his friends chipped in to help, he didn't have the money to buy a better car.

Lenny's humility and commitment were legendary among his many friends and the thousands of people he touched with his words, his photographs, and his humor. He made up for his small stature by being indelibly large in spirit. There was no fight too large, nor adversary too daunting, to frighten Lenny. He took on, in turn, the oil industry's drive to drill the Arctic National Wildlife Refuge, the coal industry's lust to deflower the Appalachian highlands, and the professional environmental movement's inertia towards complacency and bureaucratization.

Lenny loved life. His humor and laughter lit his way. He was an excellent musician, and a mimic. His Eastern European voices were particularly powerful, and often riotously funny, because they drew on his own heritage. He was not one to comfort hypocrites, nor to accept laziness or mediocrity.

But he was never arrogant, even though his accomplishments surely warranted pride. Most of all, he loved the way ordi-

nary Americans respond when they see clearly what is at stake in a conservation struggle. He believed in the American people, in their judgment, in their fairness, and in their love for their land. That belief made him a superlative organizer. In an era in which at least some environmental community leaders appear to think that campaigns are best conducted by e-mail, facebook, and social media, Lenny knew that you had to touch people in person, and reach their hearts, to move them to effective action.

And he did.



day, friends and family gathered at the base of Grandfather Mountain, N.C., to honor and celebrate the life and legacy of "The Chief." We came from all across the country — folks California and the Yukon came the furthest, while others traveled from West Virginia, Florida, Tennessee and just around the corner from his home in Todd. We spent the afternoon listening to loving tributes filled with lots of laughter (and not a few tears). The Jewish Kaddish was read, and a Luci Beach from the Gwich'in Nation played a guitter's requiem. And after a good old-fashioned potluck, we sat around a bonfire deep into the crisp autumn night, sharing stories and raising a toast (or three) to The Chief we all loved and admired.

And on another lovely, sunny day in early at the October memorial celebration, while December, a group of friends traveled to friends in Negril, Jamaica, made buttons Negril, Jamaica, — a place that Lenny dearly for the beach-side ceremony (at left).

loved and that had become his second

home — to scatter his ashes into the clear, blue waters of the Caribbean sea and celebrate his life with his Jamaican friends. Affectionately known as Lennystock the trip had originally been planned as a celebration for Lenny's 75th birthday.

As the Chief would say, if you're going to do something, "Do it in a good way."

Gwich'in Nation, were among the speakers

Mary Anne Hitt, director of the Sierra

Club's Beyond Coal Campaign (top) and

Luci Beach (above), representative of the

#### The Book of Lenny Continued from previous page

to make friends and build relationships. For Lenny, being an activist wasn't just about what you do, but about who you are — on or off the clock.

In the last years of his life, Lenny cut back to part-time in order to spend more time in his beloved Jamaica. He planned to write a book, and spent countless hours sitting on the beach with a Red Stripe in one hand and his computer on his lap.

Whether he ever started writing

chapters for that book is something we may never know, but I told Lenny many times, "you don't need to write a book — WE ARE your book." I was referring to the many of us who learned most of what we know about activism from him.

Like everyone at Appalachian Voices, and thousands of others whose lives he touched, I'm proud to be a page in Lenny's book. And now that no chapters will ever be written, it's our responsibility to carry his legacy to another generation of activists.

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## **Breaking Boundaries**

## Appalachian artists craft a contemporary twist on regional art

By Megan Northcote

An Avatar-blue, 42-inch doll with spiked, glitter-plastered hair stands erect amidst a colorful pile of trinkets. One outstretched arm defiantly wields a miniature sword as a snake coils tightly around the doll's torso, its open mouth poised to attack.

So stands the "Pangean Youth," a found-art sculpture commemorating Lexington, Ky. artist Robert Morgan's troubled friend whose naked, bluetinted body was found lying in a parking lot after a heroin overdose years ago.

Morgan helped save his friend's life that night, which, years later, helped save his own.

Growing up in an impoverished part of eastern Kentucky, Morgan would spend hours "collecting little things" from trash piles and creating "something out of nothing" with the guidance A "Greener" Approach of his mom, a self-taught artist.

After years of battling drug and alcohol addictions, Morgan, now sober and in his sixties, has returned to his childhood passion of collecting found objects to create art that tells humans' stories. "I'm always looking for ways

Jeana Eve Klein's Abandoned House Quilts combine the reality of the present with imaginings of the past. The North Carolina artist's 2012 work "Any Day in June" is comprised of acrylic paint, digital printing and dye on recycled fabric and is 63 inches tall by 69 inches wide.

to package peoples' stories that no one wants to hear," he says. His pieces have reflected the historic Lexington cholera outbreak, the 1980s AIDS epidemic, addictions and suicides.

Morgan's work blends the unusual — electronic parts, rusty springs, doll heads and gaudy carnival prizes with special finds, such as discarded

No solid boundaries define the work of contemporary Appalachian artists like Morgan. Some artists are regional natives, others recent transplants. Some pull from the narratives and imagery embedded in the region's landscape and culture, while others reject tradition and embrace globalized, innovative approaches to their work. Yet what unites all of these artists are the stories they each hold, waiting to be told.

Recycled art using found objects is an emerging trend in Appalachia and across the globe.

Mary Saylor, a 3-D mixed media artist and East Tennessee native, moved back to Knoxville three years ago. Working in an animal clinic inspired her to

#### **Reforming Tradition**

Exhibiting a representative sample of Appalachian artists living and working across the region is no small feat. Yet every other year, the William King Museum in Abingdon, Va., showcases a juried exhibition, From These Hills: Contemporary Art in the Southern Appalachian Highlands, which does just that.

The 2013 show included mixed media Abandoned House Quilts from Jeana Eve Klein, associate professor of fiber arts at Appalachian State University. Her pieces transform regional quilting traditions through a playful process that explores the forgotten human stories behind these houses; each quilt splices together manipulated digital images of self-discovered abandoned houses, which were then superimposed onto fabrics, sewn together and embellished with paint.

Likewise, Simone Paterson, associate professor of new media art at Virginia

create papier-mache animal sculptures using primarily recycled materials, such as brown paper bags and toilet paper tubes, as well as found vintage objects.

"I'm big into recycling and wanted to reduce my carbon footprint through the work that I do," says Saylor.

Making greener art can also happen in the literal sense — using found objects from nature.

Lowell Hayes, a native Tennessean now residing in Valle Crucis, N.C., has focused the latter half of his career on landscape art, specifically 3-D bas-relief construction paintings of Appalachia, using only natural materials gathered from his wooded backyard.

"People tell me that it feels like you can walk right into my work and that's exactly what I work to achieve," says Hayes, a retired art instructor from Appalachian State University.

Like many artists, moving back to Appalachia after an extended absence made him more fully appreciate the beauty of the mountains and advocate for them through his art. For example, one of his more recent series featured the Carolina Hemlock trees and helped raise awareness for this native species threatened by the woolly adelgid.

#### showcased at the 2013 show, explores digital media art. Through her installations, she juxtaposes traditional craft, particularly sewing and textile arts, with

Robert Morgan crafts evocative sculptures

Tech in Blacksburg, whose work was also

mpleted in 2011, stands 42 inches tall.

found materials. "Pangean Youth,"

computer technologies, including video projection and photography. As an Australian native, Paterson's

recent exhibition, "The Nest," commemorates her earning American citizenship. The installation is designed to provide audiences with an outsider's aerial view of America, featuring large mural landscape prints and three woven nests, each containing projected images of dogs, cats and Paterson herself, narrated by the sounds of nature's rhythmic breathing.

#### **Blurring Borders**

For 24 years, Blue Spiral 1, a prominent art gallery in Asheville, N.C., has showcased a sampling of regional artists' work.

"The things that interest me and my gallery the most are those works that stem from traditions, but are a more modern take on those art forms," says Jordan Ahlers, gallery director.

One of these artists is Michael Shercontinued on page 9



A detail from Charles Jupiter Hamilton's Westside Wonder Mural in Charleston, W.Va., depicts community faces. Photo by Bob Lynn. At right, a John Haywood tattoo strikes a soulful note

#### Breaking Boundaries continued from page 8

rill. Since moving to western North Carolina in 1974, Sherrill has blurred the lines between traditional mediums, creating a hybridization of clay, glass and metal in his 3-D sculptures.

Having cultivated his craft for years under Penland School of Crafts' internationally recognized instructors, Sherrill feels compelled to support the region's next generation of artisans.

He currently serves as board president for the Center for Craft, Creativity, and Design in Asheville, which annually awards the prestigious Windgate Fellowship to 15 collegiate art students nationwide.

"The creativity we have here [in Asheville and the Appalachian region] is our greatest commodity," Sherrill says.

Photographer Megan King graduated from East Tennessee State University in 2013 with degrees in Spanish and photography. A native of Bristol, Tenn., her photography series, "Hispanic Appalachia," was selected for the 2013 From These Hills exhibition.

Growing up in a more conservative Appalachian community, King wanted her images to raise awareness of the rapidly growing Hispanic populations in East Tennessee in the hopes of building acceptance and easing racial tensions.

#### **Rooted in the region**

Contemporary art in eastern Kentucky is often centered around the folk art of self-taught artists, says Matt Collinsworth, director of the Kentucky Folk Art Center in Morehead.

"The hotbeds of self-taught artists tend to be found in economically depressed areas," says Collinsworth. "Even though it's stylistically primitive, folk art is very much contemporary art."

John Haywood is one of these selftaught artists. A native of Risner, Ky., Haywood has turned to his work as a tattoo artist to reconnect with and commemorate his Appalachian roots, which he once shunned.

At 13 years old, Haywood allowed his friend's untrained older brother to give him his first tattoo — a Misfits skull from the popular American punk-rock band. From that point forward, he was hooked.

By the summer of 2004, he worked in Radcliff, Ky., tattooing soldiers on leave from Fort Knox. After five years of filling non-stop tattoo requests, Haywood returned to Whitesburg and opened his own shop, The Parlor Room, in 2011.

Haywood esteems tattooing as a fine art, incorporating the painting principles he learned earning a master's degree at the University of Louisville. Yet, he says he is most proud of those tattoos he creates that reflect a regional identity and confront Appalachian stereotypes. "Here [in Appalachia] I get to do tattoos that come from the minds of people who have a similar background as me. I don't want my art to go over people's heads."

# art around the region

#### VESTSIDE WONDER MURAL Charleston, W.Va.

Local artist Charles Jupiter Hamilton recently completed this colorful, 60-foot-wide mural on the Tighe Bullock building as part of a community initiative to revitalize west Charleston's downtown.

#### ART MUSEUM OF WVU Morgantown, W.Va.

By the summer of 2015, West Virginia University will unveil this new 5,300-square-foot public exhibition and gallery space that includes an outdoor sculpture garden.

#### KNOXVILLE MUSEUM OF ART Knoxville, Tenn.

The annual exhibition Contemporary Focus, which runs from Jan. 30 to April 19, 2015, will showcase the works of three Tennessee artists pushing the boundaries of their genre: Carolina Covington (sculptural mixed media), Mira Gerard (figure painting and video) and Karla Wozniak (textured paintings).

#### THE INN AT WISE Wise, Va.

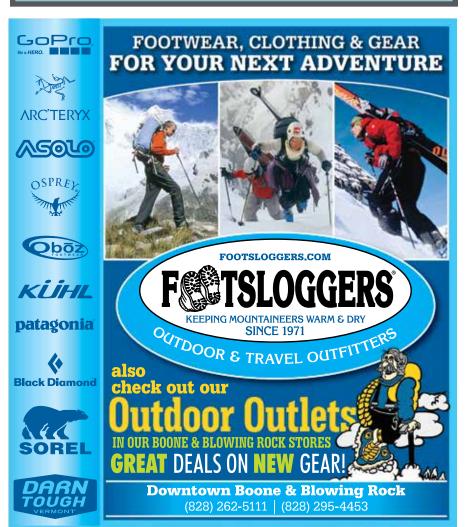
The historic, newly-renovated Inn at Wise reopens this December, showcasing a refurbished mural, rotating work from the Kentucky Folk Art Center and 147 pieces of local art curated by native Appalachian artist Teresa Robinette as part of a Southwest Virginia economic revitalization project.

#### TURCHIN CENTER FOR THE VISUAL ARTS

#### Boone, N.C.

Raised in the High Country, brother and sister Andrew Abbott and Paige Willow have reunited for their first joint exhibit, Hootenanny! - The Hometown Art Show, on

display until Feb. 7, 2015.



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# Appalachia's Health Checkup

## Region faces escalating medical need, responds with community-based initiatives

By Molly Moore

Some days people meet The Health Wagon at the Lee County airport in southwest Virginia. Other days, it's the community center in Dickenson County, or a local church. No matter where the mobile clinic vehicle pulls up, local residents step into a small waiting area, where they are greeted by a local volunteer before heading to one of the clinic's two exam rooms to meet with a nurse-practitioner for a donation-based or free medical appointment.

Nearly 25 years after Sister Bernie Kenny first traveled the mountain roads in a Volkswagen Beetle bringing healthcare to those in need, her ministry has grown into a full-fledged southwest Virginia nonprofit organization with two stationary facilities and two mobile units.

Today The Health Wagon is run by Dr. Teresa Gardner, a family nurse practitioner. She began working alongside Sister Kenny in 1993 and speaks about the region's health needs with genuine passion and determination.

"I have never seen the need more dire in my 22 years that I have been here," Gardner says. "The need is phenomenal. We have patients on a waiting list."

In 2013, The Health Wagon saw 4,167 separate patients and provided \$2.2. million in free medical care. The patients visiting The Health Wagon

dedder:

also regional concerns.

Dr. Joseph Smiddy, medical director at both the Health Wagon in southwest Virginia as well as Body and Soul Ministries in Belize, says more people in the region are falling out of the healthcare system now than when he began charity work 15 years ago. In his experience, cancers are now being diagnosed later in life than they were several years ago, and dental work is now more expensive relative to the economy. People are not receiving mental health or preventative care, he says, and epidemics of lung disease, diabetes and obesity are worsening.

The gap in healthcare coverage is evident at free clinic events that nonprofit organization Remote Area Medical hosts across the country, as hundreds of people wait in line overnight to receive medical care the following day.

Remote Area Medical, based in Rockford, Tenn., formed in 1985 to deliver airborne medical care in developing nations, but began operating in the United States in the early '90s.

• Delicious Deli-Style Sandwiches

Homemade Soups

are likely at risk for the same ailments that saddle the region as a whole. Appalachians are disproportionately affected by cardiovascular disease, diabetes, obesity and specific cancers such as lung, colorectal and cervical, according to "Appalachian Health and Well-being," published in 2012. Kidney disease, mental and oral health, traumatic injuries and substance abuse are

The organization has since hosted 742 events in 11 states. The nation's largest annual event is held in partnership with The Health Wagon in Wise County, Va. At the RAM clinics, volunteers set up scores of dental chairs and examination facilities, and doctors arrive to donate their services. Some bring their own equipment too; Smiddy arrives with a 70-foot tractor-trailer rigged with two digital X-ray machines.

Most patients who make the earlymorning journey to the temporary health clinics are motivated by a pressing need to see the dentist or eye doctor, but while waiting in line they are encouraged to also visit other medical specialists at the event. Through these visits, RAM providers have identified thousands of cases of previously undiagnosed diabetes, hypertension and cancer.

Similarly, every visitor to The Health Wagon is screened for diabetes, chronic obstructive pulmonary disease and coronary artery disease. The organization also hosts regularly scheduled sessions to address specific issues, such as respiratory disease, wound care and endocrinology — sometimes in collaboration with specialists from the University of Virginia, who provide care remotely via sophisticated, secure video technology.

Gardner is frank about the Health Wagon's financial limitations. The economic struggles in southwestern Virginia mean there is extraordinarily high demand for the organization's services at a time when resources are especially tight. The nonprofit's capacity is also taxed by the addition of new services

such as monthly screenings in Wise to help diagnose cervical cancer and other women's health issues. Despite this, she says, "We have to do something for these patients because there are patients that are dying here without care."

#### **Steps Toward Transformation**

Volunteers facilitate a vision test at a health fair in Wise, Va., organized by The Health Wagon.

Nearly all patients at the free healthcare clinics hosted by the aid organization Remote Area Medical

are in need of dental and vision care, says founder Stan Brock. Photo courtesy The Health Wagon

Margaret Tomann, program manager at the Healthy Appalachia Institute — a collaborative effort at University of Virginia's College at Wise — acknowledges the need in the region but believes it's just as important to recognize local examples of success. Indeed, the Healthy Appalachia Institute's stated goal is "to transform Central Appalachia into a leading model for rural community health throughout the world."

That transformation can take place on a local level, says Dr. Sue Cantrell, director and acting director of Virginia's LENOWISCO and Cumberland Plateau Health Districts. Social and environmental factors such as neighborhood crime and the ability to commute on safe roads are inextricably linked to health outcomes, she notes. For example, obesity leads to a host of health problems, but more kids will walk to school if sidewalks are available and the community is safe.

By examining barriers to positive health choices, these circumstances can be addressed, piece by piece. To encourage morning and early-evening walkers, a greenway trail system in Big Stone Gap now sports solar-powered

continued on page 11

## Appalachia's Health Checkup

Continued from page 10

lights, and Pennington Gap in Lee County, Va., recently received funding to install exercise stations along their walking trails. In addition to countering obesity and heart disease, establishing an active routine can also help people break the cycle of substance abuse.

This holistic approach is being employed across the region. In eight western North Carolina counties, an initiative called MountainWise is surveying the health impacts of a vast suite of community policies — such as transportation and park plans — in an effort to integrate health goals into county and town development.

The ambitious undertaking is the first of its kind in the United States, according to MountainWise, a project of the North Carolina Community Transformation Grant Project and the Centers for Disease Control and Prevention. The results of the assessments will be used to facilitate access to healthy food, provide opportunities for physical activity and support tobacco-free areas.

Improvements in physical activity and nutrition are most achievable when there is a solid foundation of education and economic security, says Cantrell. Someone juggling multiple jobs is less likely to have the time and energy for physical activity, she says, and people who succeed in school are more likely to have health insurance — and are better positioned to navigate the healthcare system.

At the Healthy Appalachia Insti-

tute. Tomman adopts a like-minded view. After noticing similar patterns of poor health indicators in counties in East Tennessee and southwest Virginia, the Healthy Appalachia Institute hosted an event to build crossstate, regional awareness of the issue. Attendees included leaders in health,

economic development and education, fields that Tomman says "are so closely intertwined you can't really do one without the other."

In one Virginia initiative, more than 20 regional collaborators are creating an outdoor recreation plan called "Health is Right Outside" that combines health and economic goals. The beauty of the Appalachian Mountains offers tourism and economic development opportunities, and Cantrell hopes that efforts to market area trails and rivers to visitors will also entice locals to nearby outdoor activities. "There's a lot here that the average person living in this area can benefit from and enjoy," she says.

Cantrell reflects that some actions to improve health must be taken on an individual level, but other changes, such as improving the high school graduation rate or building a trail network, can be accomplished together. "We can do it as a community and impact more people, and potentially their children and grandchildren."

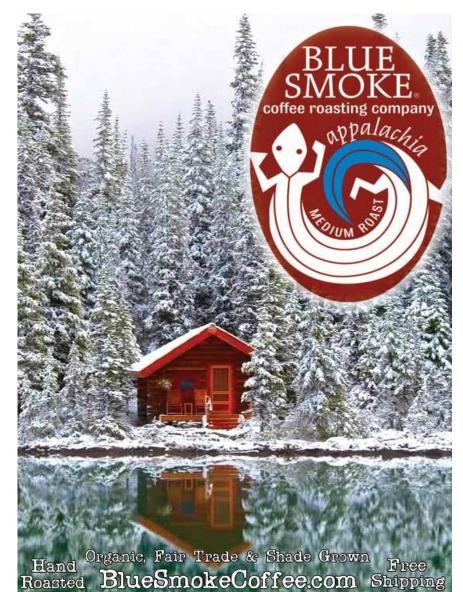


A new mobile health unit recently replaced an aging vehicle that had become unsafe to drive. Mobile units allow The Health Wagon to reach patients in remote areas, and also provide low-cost facilities that help keep overhead costs low. Photo courtesy The Health Wagon

#### LEARN MORE

lachia is the region's shortage of medical providers. Read about efforts to combat this shortage at appvoices. area at countyhealthrankings.org. org/thevoice.

publishes annual county-level information about health outcomes and factors that influence health. Explore data about your



## **Mountain Cultures of Health**

Two Appalachian communities were among the six nationwide recipients of the Robert Wood Johnson Foundation Culture of Health prize for 2014.

Buncombe County, N.C., home to Asheville and surrounding rural areas, received the award for addressing childhood poverty as a root cause of poor health and establishing a Public Health Advisory Council. The county's noteworthy projects include reducing exposure to secondhand smoke by making multi-unit housing smoke-free, and creating handbooks ties and includes a comprehensive to help families of children with special needs track medical information

pertension and diabetes in a state that is already plagued with poor health. also earned the prize for launching health and wellness programs aimed at reversing the area's health status. Community initiatives include support for health-oriented entrepreneurship, a booming community garden, monthly 5k races, and a free clinic built with an energy-efficient design - that serves Pike and Mingo coundiabetes outreach program.

exceptionally high rates of obesity, hy-

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# Linking Human Health AND Environment

As an assortment of pollutants leach into our lives, the harmful effects continue to surface in public health. Yet many questions about environmental contaminants remain difficult to study, such as long-term health effects of low-level exposure, and how these different chemicals interact in the environment.

At every stage in the life-cycle of fossil fuels — mining or drilling, transportation, processing and use - toxic waste contaminates land, air and water. And at the same time that pesticides have allowed food production to expand, these same poisonous chemicals may affect every life form on Earth, from bacteria to humans.

BY KIMBER RAY

#### FRACKING

The last decade has seen a rapid expansion of the drilling method known as hydraulic fracturing, or fracking. Sand and chemicals — including known carcinogens — are mixed with water and injected deep underground to extract natural gas from shale rock formations. Yet many chemicals remain unknown because companies may claim them as trade secrets.

Hydraulic fracturing in Appalachia currently occurs in Ohio and West Virginia, while the more shallow rock formations in Tennessee, southwest Virginia and Kentucky require an alternative process called nitrogen fracking, which replaces much of the water in fracking fluid with nitrogen gas.

As much as 90 percent of fracking fluids remain underground, and whatever does return brings with it new contaminants such as salts, radioactive material and heavy metals. This waste is stored in open-air pits before shipment to treatment plants, but dangerous levels of contaminants remain even after treatment and, in some cases, reaction with disinfectants may form additional toxic byproducts.

Exemption from hazardous waste regulations allows the solid, treated waste to be dumped into the same type of landfill as household trash. Most of the liquid treated waste is discharged into streams and lakes, and the remainder is injected into disposal wells, where it can seep into groundwater and has triggered earthquakes.

Both wells and waste-containment ponds can release chemicals into air and water through evaporation and leaks. In County Action Group Pennsylvania, state officials this summer confirmed 243 known cases of private drinking water well contamination by the natural gas industry since drilling expanded in 2008.

Groundwater and air contaminants confirmed by government and university-led studies include hydrogen sulfide, which can affect brain and respiratory health, and methane, an



At this natural gas drilling site, one of more than 100 owned by EQT in northern West Virginia, diesel emissions from heavy drilling equipment pollute the air. Photo courtesy of Wetzel

explosion hazard and contributor to climate change. Carcinogens in the mix include arsenic, benzene and formaldehyde. As benzene and formaldehyde evaporate and join exhaust fumes from transportation vehicles at the drilling site, they form ground-level ozone, which causes respiratory diseases.

#### **PESTICIDES**

Whether in food, water or air, current research suggests that no corner of the global environment is spared from pesticide contamination — not even the bacteria and fungi needed to regenerate soil.

Pesticides include popular products such as insecticides, herbicides, fungicides and rodenticides. Many properties and impacts of these chemicals remain unstudied, but researchers are continuing to uncover links to cancer, respiratory diseases and neurological impacts such as altered brain development and Parkinson's disease. Some pesticides break down into less harmful substances over time, but others, such as DDT, can persist for decades.

Agricultural field crop workers face the most pronounced and long-term risk of harm, but chemicals in products for lawn care, household pest control, flea and tick collars and lice treatment shampoos are also significant sources of exposure. Scientists remain divided on whether residues on food are significant enough to affect health.

Up to a quarter of pesticides sprayed

outdoors are carried as far as hundreds of miles away. In samples taken across the country, the U.S. Geological Survey found that pesticides have contributed to pervasive air pollution, and the agency has discovered these chemicals in underground aguifers that supply drinking water.

Pesticides also drain into surface watersheds — in 2014, the USGS estimated that nearly all national waterways contain at least one pesticide, often at levels exceeding federal standards for aquatic life, but rarely considered dangerous to human health. Yet

there is scant research on the combined effect of multiple pesticides, so the agency notes "the potential for adverse effects is likely greater than these results indicate."



Agricultural workers are particularly at risk of the dangers posed by pesticides used to fight off weeds, funguses and insects. Photo courtesy of the U.S. Environmental Protection Agency

#### MOUNTAINTOP REMOVAL COAL MINING

communities experience greater levels of air and water pollution and suffer from higher rates of illness than similar communities located further away, says Dr. Michael Hendryx, a professor of applied health science at Indiana University who has contributed to more than 30 studies on the subject.

Nearly 650 mountaintop represent in coal, such as arsenic, mercury and moval coal mining sites scar the lead, are found in every stage of mining waste. landscape of central Appalachia. Neighboring As heavy machinery and explosives remove forests — goug-

The destruction of mountaintop removal coal mining at a

mixture of rock dust and chemical residue left from the explosives fills the air. A recent air quality study near mountaintop removal mining

sites, co-authored

by Hendryx, found that even in a controlled lab environment, this dust "can cause cancerous changes to human lung tissue," a finding that had previously been suggested by health data in nearby impacted communities.

Once removed, rock and soil "overburden" is dumped into nearby valleys, and has buried more than 2,000 miles of Appalachian streams. The water that trickles through the base of these "valley fills" is laden with heavy metals, dissolved salts and other toxic substances, contaminating ground and surface water.

Streams polluted by mining waste correspond to increased rates of cancer mortality nearby, even after accounting for factors such as smoking and poverty, according to a 2010 study co-authored by Hendryx and Than Hitt, a biologist for the U.S. Geological Survey.

Damage persists even after mining ends.

The unearthed coal is transported to nearby processing facilities, separated from soil and rock, then crushed into smaller chunks. This creates tons of additional dust, which includes particulate matter, sulfur dioxide and nitrous oxides that contribute to acid rain and respiratory illnesses as well as cancer. Afterwards, the coal is washed using chemicals known to cause cancer and heart and lung damage.

After washing the coal, the leftover waste — called slurry— is disposed of either in openair, unlined ponds, or injected underground. A multitude of studies have found that the same contaminants present in mining runoff and slurry turn up in drinking water.

To discuss these issues, join our upcoming webinar discussion with a panel of experts this February. Visit appvoices.org/webinars

#### **CLIMATE CHANGE**

Much of Appalachia is predicted to experience increased temperatures and precipitation over the coming decades, with temperatures rising by four to nine degrees Fahrenheit and fewer — but more intense storms interspersed with short droughts.

#### **HEAT IMPACTS**

- Rising temperatures can heighten the risk of heat stroke during the summer and increase production of ground-level ozone, a pollutant that injures lungs and causes respiratory illness
- A longer growing season and higher concentrations of carbon dioxide will stimulate pollen production and worsen seasonal allergies

#### FOOD SECURITY

• Although annual rainfall will increase, higher temperatures will accelerate evaporation from plants and harm agricultural operations

• Livestock will be more vulnerable to heat

#### **SEVERE WEATHER**

- Heavy rainfall may cause flooding and threaten communities near coal ash and fracking fluid ponds
- Drier periods and increased lightning will escalate the risk of forest fires

#### **VECTOR-BORNE DISEASES**

The distribution and severity of diseases carried by insects will increase as rising temperatures expand potential habitats and encourage viral mutation. Of particular concern in the Southeast are:

- Lyme disease from deer ticks
- Dengue and yellow fever from Aedes aegypti
- West Nile virus from Asian tiger mosquitoes

#### **COAL COMBUSTION**

Coal is currently the largest source of global energy. When coal is burned, its carbon, hydrogen,

oxygen, sulfur, nitrogen and trace metals combine to form greenhouse gases such as carbon dioxide, methane and nitrogen oxides. Other emissions include sulfur dioxide gas, which can contribute to acid rain and respiratory diseases, particulate matter, which can cause lung and heart disease and mercury gas, a neurotoxin.

Clean Air Act regulations have pressured power plants to reduce certain emissions such as sulfur gases, but ultimately, once devices known as scrubbers remove these pollutants from the air, the resulting toxic sludge instead pollutes our water. This scrubber sludge is often mixed with coal ash — another byproduct of burning coal for electricity — and contaminants such as arsenic, lead, mercury and selenium are much more concentrated in coal ash than in coal itself.

Disposal of this toxic waste is highly controversial. According to a 2007 study by the nonprofit Clean Air Task Force, coal ash is the largest source of industrial waste in the United States, yet there a few state rules and — at press time — no federal rules directly regulating its disposal. Due to this, no matter whether the waste is mixed with water and stored in openair, unlined ponds, injected into abandoned mines, or dried out and shipped to municipal landfills, contamination of air and water can and does — occur daily.

Though exact numbers remain unknown, a 2010 investigation of 137 of the more than 1,300 coal ash ponds across the nation revealed that "when adequate monitoring systems are established and their results are publicly accessible, contamination is invariably found at virtually every coal ash pond and landfill currently operating."

Banner photo: The dam holding more than one billion gallons of coal ash waste at Tennessee Valley Authority's Kingston Fossil coal-fired power plant collapsed on Dec. 22, 2008. Photo courtesy of Appalachian Voices



Roaring Fork Headwaters site in Wise County, Va. Photo by Toxic heavy metals Matt Wasson, Appalachian Voices

Crowdfunding Solar in West Virginia
In a state known for coal, solar energy
emerges through a grassroots effort

By Eliza Laubach

Dan Conant affectionately calls his first successes cutting solar installation costs "barn raisings." After years of political organizing in college and shortly after, he wanted to use community organizing strategies for solar power.

Policies that have helped to nurture the solar industry, such as affordable leasing options, tax credits and requirements for utilities to purchase renewable energy credits aren't offered in his home state of West Virginia.

"I was trying to move back home, but there weren't any jobs available at that point," says Conant. He instead worked in Virginia and Vermont, helping pioneer innovative neighborhood-scale methods for going solar. He found ways to lower prohibitive upfront costs, which he describes as an effort to "crack the code for personal financing."

As he gained a deeper understanding of solar financing, Conant saw how difficult it is for nonprofits and municipal organizations to buy solar panels, especially in West Virginia. Nonprofits don't receive a tax credit, government entities are unable to take out loans, and commercial buildings receive less compensation than homeowners do for surplus power generated by their solar panels. After researching how to bring solar to these community groups with a model that could be duplicated in any state, he created Solar Holler.

The solar financing project raises

funds to place solar panels on nonprofit or municipal buildings. The process mirrors crowdfunding, which depends on donations from interested parties, usually solicited online. But crowdfunding is less practical among small communities and low-income residents, so Conant brainstormed an alternative revenue stream.

He partnered with Mosaic Power, a company that pays homeowners for their hot water heater to be hooked up to Mosaic's remote system. Creating a smart grid, Mosaic can then turn the hot water heater on and off in response to electricity demand. The utility pays Mosaic Power for helping them use elec-

tricity more efficiently, and the profit is transferred back to the homeowner through a \$100 yearly payment. Residents can sign up for Mosaic's program through Solar Holler, pledging their return to help fund a solar installation on a community building.

An investor will buy the solar panels after enough residents of a community pledge their revenue to a Solar Holler project to guarantee the investor a return. The pledged hot water heater payments will cycle to other Solar Hol-

Sealed Crawlspaces

Geothermal heat pumps

Healthy Home Construction

SPECIALIZING IN

Solar Flectric

Energy Analysis

ler projects once the initial project is paid off. "We're using energy efficiency to fund the solar," Conant says.

Conant launched the pilot project in his hometown at the Shepherdstown Presbyterian Church. The congregation considered solar in the past but could not afford it. Than Hitt, church member and community organizer, spent three years working with the congregation and Shepherdstown community. He provided the initial investment in the solar panels. "Self-reliance is a big thing in West Virginia and we're tapping into that," says Hitt.

Pastor Randy Tremba set up a table by the church's hot water heater for people to sign up for the Mosaic Power program in April. "A trusted community leader is a crucial ally," he adds. Within three months, enough people signed up for the program to guarantee the solar installation.

With 100 people signing on to participate, plus the sale of renewable energy credits to various Pennsylvania utilities, the project quickly moved forward. Mountainview Solar, a local solar contractor, installed a 16.2-kilowatt solar array on

"Community-supported solar builds awareness about where electricity comes from," says Than Hitt, center, holding his daughter Hazel at the ribbon-cutting ceremony for Shepherdstown Presbyterian Church's solar array. At left, Mountainview Solar crew members install the solar panels. Top photo by Mary Anne Hitt, left photo by Dan Conant

the church this past August, providing about 40 percent of the church's electricity. The Shepherdstown Elementary School principal brought the fourth and fifth grade classes to the ribbon-cutting ceremony and pledged to incorporate solar energy into the educational curriculums. "I think it's the start of something big," says Conant.

Solar Holler's goal is to have a project in each of West Virginia's 55 counties within the next five years. Two more projects are currently underway: the city hall in Lewisburg and the public library in Harpers Ferry, which achieved its quota for Mosaic Power sign-ups in mid-November.

Conant sees the importance in diversifying the economy of a state that has largely been powered by coal extraction. "We can still be an energy state, we just need to stop thinking of ourselves as a coal state," he says. Ninety-six percent of West Virginia's energy comes from coal, and mining has a continued legacy of destructive health, environmental and financial impacts. "Solar in West Virginia is more powerful than anywhere else in the country," says Conant.

Visit SolarHoller.org to learn more.

## **Southeast Solar Updates**

By Eliza Laubac

# Virginia utility to charge homeowners with large solar arrays

Appalachian Power Company will impose a fee on homeowners with solar power systems exceeding 10 kilowatts. Most residential solar systems are not affected, but environmental groups decried the standby charge for its implications on future residential solar development. The charge also weakens the incentive for net metering, which allows a utility customer who generates their own electricity to sell surplus power into the grid.

# Experimental solar power plant may add power to Fluvanna County

Steve Zenman, founder of Virginia-based solar research nonprofit Zenman Energies, obtained approval from Fluvanna County in October to build a concentrated solar power plant. These utility-scale systems reflect sunlight from a large surface area into a small area to create steam that spins turbines, generating power. Zenman is developing a low-cost prototype, and will license the project as open-source to give other designers an affordable blueprint. If funding is secured and construction moves forward, he hopes to connect the plant to the Dominion Power grid.

# Solar battery production to breathe new life into vacant cigarette plant

In a \$68.5 million deal, Swiss start-up Alevo Group plans to convert a Phillip-Morris cigarette plant in Concord, N.C., to manufacture a lithium-ion and graphite battery system called the GridBank. Alevo expects to create up to 2,500 jobs over the next three years. Made up of multiple battery cells, the system can store up to one megawatt-hour of energy, which will make renewable energy distribution more efficient. The first shipment of batteries will go to China by the end of this year, The Guardian reports.

# Duke Energy invests \$500 million in utility solar, may suppress residential solar

In September, Duke Energy announced plans to invest in 278 megawatts of solar energy, all scheduled to be on-line by 2016. This will help Duke meet North Carolina's Renewables Portfolio Standard,

which requires investor-owned utilities to generate 12.5 percent of total electricity from renewables by 2021. While Duke invests in large-scale solar farms, the utility has indicated that it wants to pay homeowners less for the energy rooftop solar panels provide to the grid. This has had a chilling effect on rooftop solar installers, according the North Carolina Sustainable Energy Association.

# Cellphones get a free charge in Knoxville, community solar on Tennessee horizon

On Market Square in downtown Knoxville, cellphone users could get a free charge from the sun in 15 minutes. The Tennessee Valley Authority installed their first solar-powered charging kiosk in October. It can charge up to six phones or tablets at a time and power devices for up to two days without sun. TVA's next step in solar will fund a minimum 500-megawatt community solar project for a local power company. In another recent announcement, TVA said that they will buy up to 4 megawatts of solar energy at two cents above market rate from community solar projects built by local power companies.

## Berea community solar farm doubles in size

A community solar farm established in 2011 by Kentucky's Berea Municipal Utilities doubled in size this past summer to 246 panels. A homeowner or business can lease a panel for \$750 and be credited monthly for the energy generated by a solar panel. The utility has leased 31 of 126 new panels since July. In October, the solar farm produced almost 6 megawatt-hours of energy, enough to power about five average Berea homes.

# Solarize initiative spreads across Virginia and North Carolina

A movement toward solar-purchasing cooperatives is helping more homeowners go solar. A minimum of ten people pledging to buy solar panels together get a discount on the parts, while local contractors competitively bid for the installations. Eleven communities in Virginia and seven in North Carolina have launched solar cooperatives. Solarize Chatham celebrated the highest support of any North Carolina Solarize program in November with 56 installations.

# Entrepreneur Banks on the Sun

By Eliza Laubach

The contraption looks like a piece of a tanning bed, exposed on a rooftop, leaning toward the sun. But rather than emitting powerful UV rays, these tubes capture them and heat water in a process called solar thermal, harnessing the sun's energy at a rate that is more than five times more effective than most photovoltaic solar panels.

James Richards, solar entrepreneur, first experimented with solar thermal while work-

ing in Nicaragua for an organization that brought alternative energy and water filtration systems to impoverished communities. When he got back to his parents' home in West Virginia, he took his research, refined it and produced the Sunbank, a sophisticated solar water heater that calls on an ageless concept: using the sun to heat water.

Richards counts himself as lucky to have found pockets of the community open to incubating his business in West Virginia. He anticipated a challenge, but found that was easy to overcome. "There aren't much more conservative places," says Richards. "It was a good test case." The West Virginia legislature got rid of a \$2,000 solar renewable energy credit last year. Although that did not affect the Sunbank, Richards called it a bad omen for solar in West Virginia. "People are pragmatic," Richards says. "Public support will happen when it makes financial sense for them."

At \$3,000, the Sunbank costs thousands less than a solar panel, but is still a substantial investment in a state where the poverty



This Sunbank installation at Bethlehem Farm near Talcott, W.Va., is part of a radiant heating system on an energyefficient house. Photo courtesy Sunbank Solar Water Heaters

rate is nearly 18 percent. In 2013, Richards received a fellowship to explore financing for the Sunbank on a large scale, which led him to move to California to work with experts and take advantage of the state's progressive policies and support for solar.

While Richards has shifted his focus on pitching the Sunbank to commercial businesses that have a high demand for hot water, such as bakeries and breweries in his new home base of Santa Cruz, Ca., the inventory and distribution remains in West Virginia. The jobs in solar are in installation, says Richards, which he leaves to local contractors.

Recent Sunbank installations in West Virginia reflect Richards' large-scale outlook. Bethlehem Farm, a Catholic non-profit retreat center near Talcott, W. Va., recently ordered eleven Sunbanks for its buildings. Coalfields Development Corporation, a not-for-profit community organization that offers construction training for low-income residents, will be installing five Sunbanks in a renovated apartment building near Huntington, W.Va.



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# Naturalist's Notebook

## **Sandhill Cranes: A Winter Spectacle in Southeast Tennessee**

By Jenni Frankenberg Veal

Each winter, thousands of redheaded, long-legged sandhill cranes descend upon the mud flats and grain fields along the banks of the Tennessee River at the Hiwassee Wildlife Refuge in Southeast Tennessee.

This winter spectacle is inaugurated by the sandhill crane's distinctive, rolling cries, which emerge from Tennessee skies in late October and early November and continue as the cranes overwinter in the region through February.

The 6,000-acre Hiwassee Wildlife Refuge in rural Meigs County, Tenn., lures the cranes with its landscape of shallow water and food, offering acres of corn, millet and grain sorghum along with water and mudflats. The cranes roost in the shallow water, and probe for invertebrates in the mud.

Of all 15 crane species in the world, sandhill cranes are the most numerous and wideranging. Six subspecies of sandhill cranes have been identified since the early 1700s. Three of these subspecies — Lesser, Greater and Canadian migrate and three subspecies — Mississippi, Florida and Cuban — do not.

The majority of Greater sandhill cranes breed across the Great Lakes region. In late summer and early fall, the birds leave their breeding grounds and congregate in large flocks before beginning their southward migration to traditional wintering grounds in southern Georgia and central Florida. In recent years, however, sandhill cranes have remained further north for the winter months in Tennessee, Kentucky, Indiana and even in southern Ontario

Beginning in the early 1990s, sandhill cranes began stopping at the Hiwassee Wildlife Refuge on their way to and from their wintering grounds in Georgia and Florida. Today, as many as 12,000 spend the entire winter there.

> "Sandhill cranes use the Tennessee River as a travel corridor," says Kirk Miles, Region 3 wildlife manager with the Tennessee

Wildlife Resources Agency. "We average, at least for the last five years, about 15,000 sandhill cranes using the Hiwassee Wildlife Refuge. However, more and more, the birds are using other fields along the Tennessee River as well."

Greater sandhill cranes are the largest sub-species of crane, and average six to seven pounds and close to five feet tall with a wingspan stretching more than six feet wide. Their feathers are varying shades of gray, and the forehead and crown are covered with red skin. Adults have a white cheek patch.

Sandhill cranes mate for life which can be two decades or more — and remain with their mates yearround. Cranes nest on the ground and often have two eggs, which the pair tends together.

Particularly during spring mating season, but also throughout the

year, sandhill cranes will "dance," which can include bowing, jumping, running, wing flapping and even throwing sticks and grass into the air.

The Greater sandhill crane rebounded from near extirpation in the 1930s when the population was estimated at 25 breeding pairs. Since that time, hunting regulations along with protection, restoration and management of wetlands have allowed the population to increase to more than 87,000 birds.

Today, hunting occurs on four of the six migratory populations of sandhill



During winter migration, visitors to Hiwassee Wildlife Refuge can view thousands of Greater sandhill cranes. The bird's colorful markings are on display at lower left. Photos courtesy Tennessee Wildlife Resources Agency

cranes in Canada, the U.S. and Mexico. Lesser sandhill cranes have been hunted since 1961 west of the Mississippi River, and Greater sandhill crane hunting opened in 2011 in Kentucky and 2013 in Tennessee. The season begins in late November and ends in January.

Jenni Frankenberg Veal is a Chattanooga-based writer and naturalist who enjoys promoting the region's historical, cultural and natural assets through her work with the Southeast Tennessee Tourism Association. Visit her blog at YourOutdoorFamily.com

## Tennessee Sandhill Crane Festival Offers Education, Viewing Opportunities

The annual migration of the elegant sandhill crane to Southeast Tennessee has become something of a celebration for area residents – and an ecotourism opportunity that draws thousands of birdwatchers and wildlife enthusiasts from across the country.

For 24 years, the annual Tennessee Sandhill Crane Festival has offered visitors the opportunity to view the cranes and learn about the rich historical and cultural heritage of Southeast Tennessee. For two days, the rural community of Birchwood transforms into a premier

bird-watching destination, offering free shuttle service between three festival sites: Birchwood Community Center, the Hiwassee Wildlife Refuge and the Cherokee themed programs, regional music, food, Removal Memorial Park

In an effort to help visitors get an upclose look at the cranes and other wildlife. guides from the Tennessee Ornithological Society and Tennessee Wildlife Resources Agency provide viewing scopes at the refuge. Crane viewing is best in the morning, as the birds tend to fly in the afternoon and return to the refuge around 3 p.m.

The festival features wildlife programs and activities at the Birchwood Community Center, including nature and historyvendors and children's activities.



Cranes cluster in shallow water. Photo courtesy Tennessee Wildlife Resources Agency

To learn more about the Tennessee Sandhill Crane Festival, visit: tn.gov/ twra/sandhilldays.shtml

SANDHILL CRANE FESTIVAL January 17-18, 2015 Birchwood, Tenn. (35 miles from Chattanooga)

Free admission and shuttle service to three festival sites. Lodging and restaurant options available in Dayton, Cleveland and Chattanooga, Tenn.

# Hiking the Highlands Tallulah Gorge State Park

By Joe Tennis and staff

We marched up and down the stairways of the Tallulah Gorge. That's what you do at Tallulah Gorge State Park: You march.

You also stroll, rest and maybe march some more. Depending on the route you choose, seeing the gorge at this park can become a communal experience of endurance.

Come during winter, you'll find solitude.

"In the winter, it's slowest," says Jessica James, the assistant park manager. "But every other time of year pretty much stays busy."

Best yet, plan for one of the weekends in November or April when the Tallulah River rushes through the gorge at historic levels, showing what the river looked like before dams were built in the area. During these annual dam releases, you can see the full majesty of the gorge's six waterfalls, captured on film for the classic Burt Reynolds adventure movie "Deliverance," and watch kayakers paddle the famed whitewater.

On the North and South Rims, easy to moderate trails lead to overlooks that provide views into the gorge. A new overlook, added in the spring of 2014 just outside the visitor center, provides an easily accessible view of the suspension bridge at the bottom and a portion of the park's tallest waterfall, the 96-foot Hurricane Falls.

Signs point the way all around the park, allowing visitors to combine their own hikes out of the nearly 20 miles of trails. "I think most people are looking for a fun adventure," says Jonathan Bast, an interpretive ranger at the park. "We offer both ends of the spectrum from real easy to real difficult."

One popular option is to hike the approximately two-mile Hurricane Loop, which combines parts of three trails and leads into the steep gorge, past Hurricane Falls, and back up the other side. But with 1.099 stairs to traverse, this trail is rated difficult, so do not attempt this trail if you have any

known health conditions.

Start out by heading down the 310 steps to the bridge suspended 80 feet above Hurricane Falls. Some folks choose to turn around here. "It's just enough of a challenge that everybody can complete it," Bast says.

On the far side of the bridge, another 221 steps descends to the riverbed. The trail then climbs up a serious set of stairs to join with the South Rim Trail. Turn left to take the quick out-and-back half-mile walk to Overlook #10 for stunning views of Oceana Falls, and then head back around the South Rim to cross U.S. 441, and connect with the North Rim Trail, catching glimpses of L'Eau d'Or and Tempesta falls along the way back to the Interpretive Center.

Continue an additional half-mile hike to Inspiration Point to see the gorge's deepest spot — and one of the best views in the park — at nearly 1,000 feet.

For the more intrepid adventurer, the Gorge Floor Hike — rated very difficult — is accessible just below the suspension bridge, and ends at Bridal Veil Falls and Sliding Rock, the only place to swim in the gorge. According to James, traversing the gorge floor is "more like rock hopping and bouldering," and the three-mile round trip can take three-tofour hours. "And there's no designated trail. There are some places where you have to sit and crab-walk. I would say most people would feel a little bit out of their element [on this hike]."

Rangers issue only 100 permits a day, and demand is high — the park often runs out by 8:30 in the morning. "It's for safety reasons and to protect the natural resources," she says.

Due to the risk of getting wet, hiking the gorge floor might be most comfortable during the hotter times of year, James adds, but even in the winter permits are available most days.

#### **HIKES WANTED!**

Do you want to see your favorite trail featured in Hiking the Highlands? Email voice@appvoices.org to share your trail tip.

That's why taking the Hurricane Loop proves more popular and accessible, especially in winter months. But, even then, be ready for lots of huffing and puffing. Going straight up all those stairs is exhausting, though satisfying.

"I think it still feels like a wild and

scenic place here in the Northeast Georgia mountains, even as it continues to increase in population," James says. "We get about 300,000 visitors a year." Joe Tennis is the author of "Virginia Rail Trails: Crossing the Commonwealth" (The History Press, 272 pp., \$19.99, 2014).

from Overlook #2. Photo by Tallulah Gorge State Park TALLULAH GORGE STATE PARK

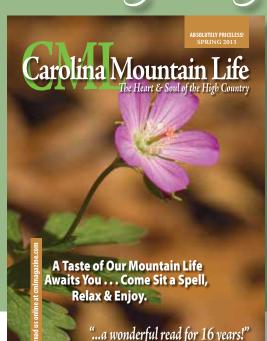
> A two-mile long, 1,000-foot deep gorge offering 20 miles of hiking and mountain biking trails ranging from easy to very difficult

View of L'Eau d'Or Falls

**Directions:** Located immediately off of U.S. Hwv. 441 between Clayton. N.C., and I-85, in the town limits of Tallulah Falls, Ga.

Contact: (706) 754-7981 or GAState-Parks.org/TallulahGorge Call for information on winter weather conditions

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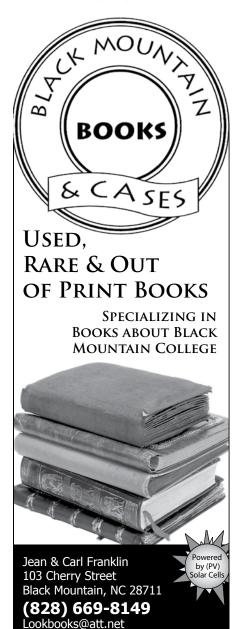
## **Corruption and Enforcement Failures Raise Concern for Clean Water**

By Brian Sewell

Recently uncovered conspiracies to violate the Clean Water Act have heightened concerns about corruption in central Appalachia and the effectiveness of state agencies responsible for enforcing the law.

In September, charges were filed against John W. Shelton, a former employee of West Virginia-based Appalachian Laboratories Inc., for tampering with water quality samples collected at surface coal mines in West Virginia between 2008 and 2013 to conceal permit violations and keep customers satisfied. He faces up to five years imprisonment and a \$250,000 fine.

A federal investigation into Appalachian Labs is ongoing. But environmen-



tal watchdogs quickly noted that this is only the latest example of one of the Clean Water Act's most important functions being compromised in Appalachia.

#### The Stigma of "Self-reporting"

Under the Clean Water Act, the U.S. Environmental Protection Agency can regulate pollution discharged directly into surface waters. The agency has authorized 46 states across the U.S., including those in central Appalachia, to issue pollution discharge permits and take action when violations are discovered.

But the system's success hinges on the honor code of environmental protection: self-reported data. States trust permit holders, who often hire private companies, to collect and test water samples and submit discharge monitoring reports to regulators for review. However flawed, this is the fundamental mechanism used to determine if coal companies and other polluting industries are obeying the law.

State action following John Shelton's guilty plea has been relatively swift. On Oct. 21, the West Virginia Department of Environmental Protection revoked Appalachian Labs' certification. The next week, the agency announced that "no permitting decisions will be made without verification of data submitted by Appalachian [Labs]."

The director of DEP's Division of Mining and Reclamation, Harold Ward, said the decision affects a "wide array" of coal companies operating in West Virginia and all of their pending permits.

An analysis of West Virginia dis-

**Forest Continues Operations** 

An effort by West Virginians to stop

Lawyers for the Kanawha Forest Co-

mountaintop removal mining near a state

forest failed even as the mine amassed a

alition argue that the permit for Keystone

Industries' KD No. 2 mine should never have

been issued because the West Virginia De-

partment of Environmental Protection did not

consider the effects of mining on the 1,500-

acre Kanawha State Forest Historical District.

Despite those concerns, Kanawha

series of violations.

Contested Mine Next to Kanawha State

charge monitoring reports by Appalachian Voices, the publisher of this newspaper, found that Appalachian Labs was responsible for nearly 25 percent of the reports submitted to the state between 2009 and 2014, more than any other company certified in West Virginia.

Appalachian Labs responded by suing the DEP, which they say stigmatized their business to the point customers cannot risk using it for their water monitoring needs. On Nov. 26, a judge overturned the DEP memo requiring additional data for sites using Appalachian Labs and told regulators they must treat the company "the same as any other laboratory."

#### **Worries Grow Widespread**

The story of Appalachian Labs is a striking example in an even more disturbing trend.

In 2010 and 2011, Appalachian Voices, Kentuckians For The Commonwealth, Waterkeeper Alliance and Kentucky Riverkeeper took legal action against three of the largest coal companies in Kentucky for routinely turning in false pollution reports to the state.

During the period they were submitting duplicated monitoring reports, the companies reported virtually no pollution violations. But the Kentucky Energy and Environment Cabinet failed to identify or address the falsified reports. Accurate reports revealed thousands of violations — and patterns of pollution that the false data had obscured.

Two of the three companies entered settlements in 2011 and 2012. But the third, Frasure Creek Mining, said it could not

Circuit Court Judge James Stucky refused

to void the permit. Lawyers for the mine's

operator argued the case should be re-

viewed instead by the state Surface Mine

Board, which already held hearings on the

mine in August and is expected to rule soon

on whether the permit was wrongly issued.

the 4,188-acre mine has accumulated 10

citations for violations including failing to

to be in the park

Since it began operating in June,

afford to pay the penalties, prolonging the case over the past few years.

Frasure Creek has since entered and reemerged from bankruptcy, but new evidence suggests the company quickly returned to submitting falsified water monitoring reports.

On Nov. 17, Appalachian Voices and its partners in Kentucky announced their intention to sue Frasure Creek for nearly 28,000 reporting violations in 2013 and 2014 — three times the amount the groups discovered in 2010 — carrying a maximum combined penalty of more than \$1 billion.

Eric Chance, water quality specialist with Appalachian Voices, called the failure of the state agency to stop the violations "disturbing," and questioned whether state officials read the quarterly pollution reports.

A week after the notice to sue Frasure Creek was issued, a Kentucky judge issued orders rejecting the settlement agreed to by the company and the cabinet in the 2010 case and ruled that the cabinet had circumvented the rights of citizens to intervene under the Clean Water Act.

The settlement, Judge Phillip Shepherd wrote, was unlikely to change Frasure Creek's behavior because the economic benefit the company obtains from cheating the law "far outweighs the costs of compliance, or the risk of any fines and penalties that the cabinet will impose."

Petitions asking the EPA to withdraw states' Clean Water Act authority and replace it with federal oversight are pending in Kentucky, West Virginia and Virginia, among other states.

#### Roanoke Electric Receives \$6 Million Loan for Energy Efficiency

In October, the North Carolina-based Roanoke Electric Cooperative became one of the first recipients of a loan through the U.S. Department of Agriculture's Energy Efficiency and Conservation Loan Program. The cooperative will use the \$6 million loan to launch "Upgrade to Save," a voluntary on-bill financing program allowing its members to make investments report water quality data and blasting on a : in energy efficiency upgrades and reduce state holiday, when more visitors are likely: their energy costs.

## Legal Battles Flare Up Regarding Atlantic Coast Natural Gas Pipeline

Proposed N.C. Fracking Rules Move Forward

By Brian Sewell

On Nov. 11, Dominion Transmission Inc., sent letters to 226 landowners in North Carolina, Virginia and West Virginia who have refused to allow surveyors onto land along the 550mile route of Atlantic Coast Pipeline. The company says it will seek a court order allowing access if landowners refuse to cooperate.

But some legal experts say Dominion must first prove the pipeline serves a public need.

"It's improper for a company just to assert that its project is for public use, without actually having had that determined," Joe Lovett, an attorney with Appalachian Mountain Advocates, told Public News Service.

In September, residents of Nelson County, Va., filed a lawsuit in federal

North Carolina's Mining and Energy

Commission approved proposed chang-

es to state rules on hydraulic fracturing

this November. When Gov. Pat McCrory

signed a bill in June lifting North Caro-

lina's 2012 moratorium on the oil and

gas drilling practice known as fracking,

final rules were ordered to be submitted

submitted nearly 220,000 public com-

Citizens and environmental groups

to state legislators by Jan. 1, 2015.

By Kimber Ray

court claiming a Virginia law allowing natural gas companies to enter private property without a landowner's written permission is unconstitutional. Like Lovett, attorney Neal Walters, who is representing the landowners, argues Dominion has not demonstrated the pipeline's public use. Dominion has asked the court to dismiss that lawsuit.

The \$5 billion Atlantic Coast Pipeline is a joint project between Dominion Resources, Duke Energy and Piedmont Natural Gas that would deliver natural gas produced in Ohio, Pennsylvania and West Virginia to power plants and other industrial customers in the Southeast.

Duke Energy and Dominion recently asked the Federal Energy Regulatory Commission to begin its environmental review of the pipeline, beginning with a public comment period.

ments on the rules governing fracking

safety standards, but the commission

made few significant changes the public

proposed. A request to ban fracking

waste storage in open pits — deemed too

complicated to address this year — was

days after the state legislative session

begins Jan. 14, and companies will be

able to apply for drilling permits no

later than May.

All rules will automatically pass 61

shelved to reexamine another year.

#### Ex-CEO Indicted for Fatal 2010 Mine Explosion The charges — three felonies and one

In November, former Massey Energy CEO Don Blankenship was indicted on four charges in conjunction with the April 2010 explosion that killed 29 miners at the company's Upper Big Branch mine. He pleaded not quilty.

The indictment alleges that Blankenship closely managed the West Virginia coal mine and, in that capacity, "conspired to commit and cause routine violations of mandatory federal mine safety standards." He is also charged with impeding federal mine safety nspectors before the disaster, and making false and misleading statements afterward.

that the scale of the Upper Big Branch disaster was due in part to high levels of explosive coal dust and poor ventilation in the mine. Under Blankenship's leadership, from 2000 to 2009 Massey accrued more safety violations than any other coal company and was tied with CONSOL, Inc. for the worst fatality record. Both companies lost 23 miners

during those years, but Massey produced less

coal. In 2009, Massey was fined \$12.9 million

in proposed safety violations, and Blanken-

ship received a \$2 million safety award.

misdemeanor — carry a possible jail sen-

tence of 31 years. Four investigations found

## Court Upholds EPA Revocation of Mine Permit

By Brian Sewell

A federal judge acknowledged the environmental damage caused by mountaintop removal this September when she ruled to uphold a U.S. Environmental Protection Agency veto of a permit for one of the largest surface mines ever proposed in Appalachia. Originally proposed in 1997, the by Arch Coal of the EPA's authority to veto Spruce No. 1 mine would have occupied

more than 2,250 acres in Logan County W.Va., and buried more than six miles of headwater streams with mining waste. Citing the irreversible nature of this damage, the EPA vetoed the site's Clean Water Act permit in 2011. The decision comes after the Supreme Court refused to hear a challenge

## Research Finds Mine Reclamation Failures

Efforts to restore mountaintop removal coal mines are not meeting the objectives of the Clean Water Act, creating a variety of consequences for aquatic life, according to a September study by the University of Maryland's National Socio-Environmental Synthesis Center. According to the study's authors, surface mine sites reclaimed more

than 20 years ago are still degrading water quality. In a separate study of salamander populations and species diversity in impacted streams. University of Kentucky researchers concluded that although improved reforestation efforts could be beneficial for salamanders, current reclamation practices do not lead to recovery of species

#### Industry Attempts to Derail Oil Train Safety Rules

Following a rise in explosive, and ing systems. But oil and railroad industry sometimes deadly, oil train derailings, the U.S. Department of Transportation proposed new safety regulations on trains carrying crude oil including stronger tanker cars, slower speeds and improved brak-

groups argue it will take at least seven years to produce safer tank cars while also retrofitting older cars. In May, a train derailed in downtown Lynchburg, Va., spilling crude oil into the James River.

#### 113TH CONGRESS: Below are recent congressional bills and amendments on environmental issues and how central and southern Appalachian representatives voted. To see other recent votes, or for congressional representatives outside of the five-state area, visit thomas.gov / = pro-environment vote / = anti-environment vote / = no vote H.R.1422, the EPA Science Advisory Board Reform Act, would increase industry participation and dissenting views regarding scientific information on the board, and impose new restrictions on the board's capabilities, 229 AYES, 191 NOES, 14 NV PASSEI H.R. 4012, the Secret Science Reform Act, would prohibit EPA actions that rely on scientific X X X or technical information unless it is publicly available online, effectively prohibiting the use of studies with confidential health information. 237 AYES, 190 NOES, 7 NV PASSED H.R. 2. the American Energy Solutions for Lower Costs and More American Jobs Act, would expedite approval of the Keystone XI, pipeline, curtail the FPA's ability to X X 0 0 X limit greenhouse gases, promote onshore and offshore oil and gas development, and promote coal mining, among other objectives. 226 AYES, 191 NOES, 14 NV PASSED B. Corker (R) R. Burr (R) T. Kaine (D) M. Warner (D) J. Manchin (D) J. Rockefeller ( M. McConnell (R) R. Paul (R) L. Alexander (R) K. Hagan (D) Note: Senate legislation needs 60 votes to pas \$.2280 would approve the Keystone XL tar sands pipeline and bypass the State Department's assessment process. The segment of pipeline would transport tar sands oil mined in Canada to the Gulf Coast for export. 59 AYES, 41 NOES, FAILED

# It's Still Happening

## Fighting Mountaintop Removal Coal Mining During the Obama Years



Appalachian Voices Legislative Associate

In 2009, after President Obama took office, there was a great deal of optimism among Appalachian

Voices and our allies. New agency heads and White House spokespersons parroted the talking point that "the administration will do what the science calls for." In Appalachia, the science calls for an end to mountaintop removal coal mining.

It's been nearly six years since the Obama administration took over. In that time, together with those who have been directly impacted by mountaintop removal, Appalachian Voices staff has met with the U.S. Environmental Protection Agency, the Department of Interior, the Army Corps of Engineers, the White House Council on Environmental Quality, and the Office of Surface Mining, Reclamation and Enforcement more times than we can count. On top of that, our supporters have sent tens of thousands of letters to these agencies.

So what has all of that gotten us? The administration has fallen woefully short of what we had hoped. Of all of the ways to gauge success, one simple question sits atop the list: is mountaintop removal coal mining still happening in Appalachia? Sadly, the answer is "Yes."

I don't want to be unfair to the people in these agencies who have worked tire-

VOTED BEST BBQ IN THE REGION

Editorial by Thom Kay, lessly to limit the pollution from mountaintop removal. Indeed, they have done far more to curtail the destructive mining practice than either the Clinton or Bush administrations. While that's a low bar, they have made significant changes, and there is less mountaintop removal mining today then there was between 2002 and 2008. Part of that is due to market forces, and part of that is due to the actions of the Obama administration. These actions, however, have not been enough.

There is only one sufficient solution

to the problem of mountaintop removal, and that is total abolishment. Anything short of that is a failure. At first glance, this may sound extreme, and even unreasonable. But there is never a time when it s okay to blow up a mountain, dump the waste into valleys, and put the health of local communities at risk by filling their air and water with dangerous chemicals, heavy metals and particulate matter. There is a right and wrong way to do many things, but there is no right way to do mountaintop removal coal mining.

The Obama administration should allow the science around mountaintop removal to drive their policy making. Regrettably, they have chosen politics and public perception as their top priorities. They want people to think they are moderate and reasonable, and they are willing to sacrifice good policy in order to maintain that appearance.

When I have met with administration officials, they seem to believe they have done enough work on moun-



A series of Google Earth images of Magoffin County, Ky., shows the growth of the Right Oakley Surface Mine operated by Licking River Mining, LLC. The images are from June 2008, June 2010 and October 2013, which is the most recent date available.

taintop removal. They have taken steps there still are alternative paths forward. to limit the amount of mines, valley fills and overall pollution. But modest steps are not good enough for us, and they are not good enough for communities in Appalachia who continue to live with the nightmare of mountaintop removal.

Since the beginning of the administration's first term in 2009, Appalachian Voices has advocated for them to stop issuing any permits for mountaintop removal mines. Instead of refusing all permits associated with mountaintop removal mining, they have chosen to issue permits for mines and valley fills. The Obama administration has issued fewer permits than its predecessors, but permits have been issued nevertheless.

Our next goal was for the EPA and the Army Corps to work together to change the definition of the term "fill material" in the Clean Water Act to exclude mining waste, which would eliminate the use of valley fills, and, thus, eliminate the biggest mines in Appalachia. From the first meeting we had with them, the White House has refused to change the definition of "fill material." While we pushed at the beginning of the president's first term, it soon became clear that they would never even consider taking action.

Right from the start, we were

There are several things the administration can do between now and the end of Obama's term in January of 2017. In order to make long-lasting changes that benefit Appalachia, the EPA, OSMRE, Army Corps and DOI will all need to be involved, and it will take White House leadership to make that happen.

Since 2009, OSMRE has been developing a much-needed Stream Protection Rule. A draft is not expected to be released until the middle of 2015, so the precise contents of the rule are unknown. What we do know is that the rule will regulate surface coal mining in or near streams, and would replace an outdated 1983 rule. It has the potential to be the most important action the administration takes to curtail mountaintop removal, if they choose to include strong safeguards against mining waste polluting Appalachian streams.

Politics will of course play a big role in the final version of the Stream Protection Rule. Coal industry allies in Congress have already put enormous pressure on OSMRE and Department Director Joe Pizarchik. The U.S. House of Representatives passed a bill in spring of 2014 that would prohibit OSMRE from completing the rule-making process. met with disappointment, but While that effort has been blocked from continued on page 21



## It's Still Happening

Continued from page 20

moving forward in the Senate by Majority Leader Harry Reid (D-NV), next Congress will be different, as Sen. Mitch McConnell (R-KY), an ardent ally of the coal industry, is expected to take over as majority leader. It's almost certain we will have a fight on our hands in the Senate at some point next year.

The administration's next opportunity is for the EPA to create a water quality standard for conductivity. For years, the EPA has known that conductivity, a measure of the amount of dissolved solids in water, is a critical indicator of stream health. Based on the best science, mountaintop removal mining results in conductivity levels elevated beyond what is healthy for streams, and a science-based water quality standard for conductivity would result in violations for practically all mountaintop removal mines.

A rule-making can take years, and

already blown their opportunity to do a full water quality standard for conductivity. With the knowledge that mountaintop removal mines result in unhealthy conductivity levels for nearby streams, the EPA should, at the very least, refuse to issue permits for new mines.

The EPA also has an opportunity to create a federal standard for selenium pollution. Selenium bioaccumulates within fish, birds and reptiles, where it causes serious deformities, reproductive failure and death.

The agency is currently considering a new selenium standard, but their latest proposal for a standard is convoluted, unenforceable, and may take away one of our most reliable tools in fighting water pollution from mountaintop removal. Instead of relying on regulators to handle monitoring for the thousands of cases of water pollution from mountaintop removal — a task they have repeatedly proven incapable of doing — citizens need to be able to monitor water in their

munity members, we have been able to do that monitoring, but rules that make such monitoring more difficult are a huge step backward. EPA needs to implement a protective selenium standard that is enforceable by citizens and regulators alike.

The coal industry will continue doing everything in their power to prevent strong conductivity and selenium standards. Most industry resistance has been in the courts, but in several congressional hearings over the past If the White House fully commits over few years, members of Congress have spewed coal company talking points in an attempt to put political pressure on the administration. The industry and their allies in Congress will continue to enormous opportunity lost.

push back against effective safeguards. They will use every dollar and every trick they have to maintain their grip on the region. And they will do everything they can to hold off the day Appalachia can move past mountaintop removal.

It's true, the Obama administration has taken steps to limit the pollution from mountaintop removal. But mountaintop removal coal mining is still happening, and that is unacceptable. the next two years, they can make huge changes that will benefit Appalachia for generations. If they continue to take half measures, however, it will be an





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## **Appalachian Voices Uncovers Clean Water Violations in Kentucky**

## Judge Rejects Deals Between State and Coal Company

On Nov. 17, Appalachian Voices and our partners in Kentucky served Frasure Creek Mining with a sixty-day notice of our intent to sue for perpetrating almost 28,000 violations of federal law at its coal mines in eastern Kentucky. This is possibly the biggest conspiracy to violate the federal Clean Water Act in the history of the law.

Since 2013, the company has been turning in false water pollution reports for several of its coal mines in eastern Kentucky that feed into the Big Sandy, Licking and Kentucky rivers.

We initially took legal action four years ago against Frasure Creek and two other companies for duplicating data on water pollution reports. Unbelievably, Frasure Creek has begun doing the same thing again, only this time the problem appears even more extensive.



False reporting like this undermines the regulations that are supposed to protect American citizens and their waters from industrial pollution. Without valid reporting, there is no way to know if and when a coal mine is contaminating water, to what extent or for how long. Regulations then become useless and our safeguards are thrown out the window.

A week after we and our partners served Frasure Creek with the latest notice to sue, a Kentucky judge overturned two slap-on-the-wrist settlements that Kentucky regulators had reached with the mining company a few years ago.

The judge issued two rulings, one on each of the two cases against Frasure Creek that were before him. The first case was based on the false water monitoring reports that

> we uncovered in 2010. The cabinet entered a settlement with Frasure Creek with miniscule fines compared to what is

> > **Appalachian**Voices

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allowed under the Clean Water Act. We then challenged that weak settlement in court. In last week's ruling, the judge threw out the settlement because it is not "fair, reasonable or in the public interest."

The second case was based on pollution problems that became evident once Frasure Creek's false reporting subsided. Even though we were full parties to the case, state regulators and Frasure Creek reached another sweetheart settlement without our involvement. The judge found this had violated our due process rights and threw out the settlement, sending the case back to administrative court.

Both of these decisions could be appealed, and since previous settlements were simply thrown out, the actual violations are still unresolved. Nonetheless, this is a great step forward, and a great vindication of citizens' right to protect their environment

In the meantime, we will continue to work hard at bring-

October - November 2014

**M-Prints** 

Boone, N.C.

**Mast General Store** 

Valle Crucis, N.C.

**Sunny Day Homes** 

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**Three Rivers Market** 

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In Floyd County, Ky., water flows from one of the discharge points where Frasure Creek Mining was turning in false water monitoring reports

ing justice to these polluters and Mary Cromer of Appalachian holding regulators accountable for not doing their jobs. Appalachian Voices is joined in the latest notice to sue by Kentuckians For The Commonwealth, Kentucky Riverkeeper and the Waterkeeper Alliance. The groups are represented by porchblog

Citizens Law Center, attorney Lauren Waterworth and the Pace Law School Environmental Litigation Clinic.

Read the full story and latest updates on our Front Porch Blog at appvoices.org/front-

## So Long, But Not Goodbye

It is with equal parts sadness and celebration that we bid adieu to our long-time friend and the coordinator of our Tennessee program for the past year, Ann League. While we are losing a formidable teammate, we are excited that Ann is leaving to head up one of our partner organizations, Statewide Organizing for Community eMpowerment in Tennessee. As SOCM's new executive director, Ann will continue to fight alongside Appalachian Voices to stop the destruction of Appalachian communities from mountaintop removal while tackling other pressing environmental and social justice issues in her home state. Ann was instrumental in helping us launch our Energy Savings for Appalachia program in Tennessee and encouraging officials of

electric cooperatives and state



agencies to develop financing programs for residential energy efficiency. She also coordinated a grassroots effort that ultimately blocked a state bill to implement a surface mining program that would have hefted the bill for mine regulation onto Tennessee taxpayers. We wish Ann much success in her new position, and will definitely keep in touch!

## INSIDE APPALACHIAN VOICES

## **Member Spotlight: Kevin Price**

Although no longer

and Kevin's personal touch. He still

hand-roasts Blue Smoke specialty

blends by the pound, using solar-

heated water and purchasing clean

energy to power his roastery, before

packing it up in biodegradable bags

and recycled boxes and hopping on

a bike or in his hybrid for delivery.

And today, Kevin's conscientious

business philosophy has paid off for

the organizations he supports while

building a devoted, regionally con-

Smoke's sales — that's sales, not just

profits — to Appalachian Voices and

other environmental and humanitar-

ian nonprofits. The long list of testi-

monials on the Blue Smoke website

is full of kind words praising Kevin

Kevin donates 10 percent of Blue

centrated customer base.

model in action."

roasted in an iron skillet,

each batch of Blue Smoke

nevertheless has character

A Small Businessman, with Soul

By Brian Sewell

Kevin Price says his company's slogan is "coffee with a soul." It could not be a better fit — most of all for the soul he puts into his small coffee business.

"Blue Smoke has always been about making a difference," Kevin says. "It has given me a platform to promote and make people aware of different things I'm passionate about."

Based in southern Appalachia, Blue Smoke Coffee comes from humble beginnings. About a decade ago, Kevin began roasting coffee beans in an iron skillet in a Smoky Mountains cabin. As he fine-tuned his process, he started sharing his roast with friends and discovered a passion for hand-roasted coffee along the way. Soon, that passion became a business philosophy, and Kevin created a community around quality coffee and important causes.

In addition to being a committed member, supporter and friend of Appalachian Voices, Kevin advertises in *The Appalachian Voice* and distributes 2,000 copies of the paper to Asheville, Chattanooga, Gatlinburg and everywhere else Blue Smoke Coffee goes. Order a bag of coffee online and you might find yourself perusing *The* Voice while you brew your first cup of Blue Smoke.

Many people recall the first time they learned about Appalachian Voices or flipped through a copy of *The Voice* — an experience that frequently occurs in a local coffeehouse. A longtime reader turned distributor, Kevin can't guite remember when he first picked up the paper. That's how far back his ties to Appalachian Voices go.

"Kevin has been one of our most stalwart supporters throughout the history of *The Voice*," says Jamie Goodman, editor of the publication. "He is a person who really lives what he preaches — supporting organic and fair trade practices, speaking out against mountaintop removal, and



charity event (left), and poses with his chocolate lab, Mae Mae, Blue Smoke's unofficial mascot. Naturally, sales of Mae Mae's Blend benefit animal nonprofits.

> businesses have a responsibility to encourage more conscious consumers. "We know we have the ability

> to destroy this planet," he says. "But to a lot of people it's invisible. They don't think about environmental problems impacting their lives."

When distributing The Voice to coffee shops around southern Appalachia, Kevin notices the issues that leave the newsstands empty usually have beautiful covers featuring scenes of Appalachian wilderness and wildlife, even when stories of environmental destruction and injustice are covered prominently inside. Blue Smoke, he says, employs a similar strategy.

"I hook them with the coffee."

Find Blue Smoke on Facebook or buy coffee online at bluesmoke-



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Tom Cormons Executive Director

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As winter's snow cloaks the Appalachian mountains, a dazzling display of water and ice reflects the light of the rising sun. Freelance photographer Scott Hotaling captured this image along the Blue Ridge Parkway, near Pounding Mill Overlook in western North Carolina.

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# Support OUR Appalachian Voices

So many people across Appalachia — folks just like you — have stepped up to fight for our mountains and waterways.



People like Denise, a North Carolinian fighting to keep fracking from her state, or Carter, who monitors the water quality below coal mine sites near his Kentucky home. Or Rees and Kathy, who are standing up for Virginia homeowners' right to use renewable energy, and Danielle, a cancer survivor determined to protect her North Carolina community's water from toxic coal ash.

**But we need your support** to continue working with and advocating for these local heroes and others who are fighting to protect our region. Join us in working toward a clean, healthy future for ALL mountain lovers. **Please Donate Today -->** 

To read these stories and more, visit: AppalachianVoices.org/Our-Voices

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