

FREE

The Appalachian VOICE

Spring 2020

**THE LURE OF
APPALACHIAN
TROUT**

**Betting the Farm
on Hemp**



**Electric Costs
on the Rise**

**The Impacts of
Coal Bankruptcies**

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A note from our executive director



The desire to make life better for our families and neighbors and to protect the places where we live comes naturally. But as we move through life, many of us are told that the world is too complex or the systems are too rigged for us to make a difference. In my 12 years at Appalachian Voices, we have not been discouraged by the naysayers. While the going isn't easy, we have proven that we have the power to create positive change.

When Appalachian Voices first began going door-to-door in neighborhoods near some of Duke Energy's toxic coal ash ponds in North Carolina, we didn't know that roughly eight years later we would be rejoicing with members of those communities, celebrating a court ruling that orders cleanup of the state's remaining coal ash ponds (See page 14).

But we did know that coal ash was dangerous and that local residents weren't hearing the full truth from Duke or government agencies. We knew that if we worked together, we might be able to make a change.

Change happens because we — you, us, our neighbors and partners from all walks of life — come together to identify our needs, chart out a good strategy and don't stop working towards our goals. We might not always have the political establishment on our side. But when our purpose is clear and our coalition is diverse, united and persistent, and we use our collective energy wisely, we can improve our world.

In recent months, Appalachian Voices has been at the table with organizations from communities across the

nation that have been hard-hit by the decline of the coal industry. Convened by the Just Transition Fund, this collaborative plans to release a platform in late winter outlining federal strategies that would support workers and communities affected by past and future coal site closures and promote a clean, life-sustaining environment (See page 22).

The challenges facing mining and power plant communities in Appalachia, the Midwest and the Navajo Nation are many, and there is no overarching, simple fix. But by working together to advance place-based, inclusive, community-driven solutions, we can bring about a better tomorrow.

For our mountains,

Tom

Tom Cormons,
Executive Director

A Notice to Readers

Thank you for your readership of The Appalachian Voice publication. We are grateful to the 200-plus incredible volunteers who help us distribute 90,000 free copies of each issue across our region.

As you may know, The Appalachian Voice is produced by the nonprofit regional advocacy organization Appalachian Voices.

We fight fossil fuels and the harm they pose to the people and places of Appalachia, and we advance energy efficiency, renewable power, and other solutions that create community wealth and sustain our region's mountains, forests and waters.

As this work expands and places increased demands on our communications staff, we must ensure we continue to be good stewards of our financial resources. Due to this, The

Appalachian Voice is shifting to a quarterly, seasonal schedule instead of a bimonthly one.

Stay connected between issues of the paper by subscribing to Appalachian Voices' monthly e-newsletter at appvoices.org/sign-up, visiting our blog at appvoices.org/blog and following us on Facebook, Twitter and Instagram.

Thank you for your understanding as we make this shift!

— The Appalachian Voice team

GET INVOLVED environmental & cultural events

See more at appvoices.org/calendar

Duke Energy Rate Hike Hearings

Feb. 27, 7 p.m.: Rockingham, March 23, 2 p.m.: Raleigh (evidentiary hearing), May 4, 2 p.m.: Raleigh (evidentiary hearing) Attend a public hearing on Duke Energy Progress' and Duke Energy Carolinas' latest N.C. rate hike requests. For details and how to comment, see page 30.

Regional Environmental Roundtable

February 29, 9:30 a.m. - 2:30 p.m.: Join environmental and community leaders from 3 states to discuss how fossil fuels and industrial development will impact West Virginia's East-

ern Panhandle. Free. Kearneysville, W.Va. For information and to register, call (304) 261-8299 or visit tinyurl.com/WVRoundtable

Southeast Coal Ash Summit

March 27-28: Join Appalachian Voices and other coal ash experts to discuss ash recycling, clean-up and more. \$10-\$25. Greensboro, N.C. Call (828) 262-1500 or visit tinyurl.com/SECoalAsh

Census Day

April 1: Every U.S. household should receive an invitation to participate in the 2020 Census by April. See page 27 or visit 2020census.gov

Appalachian Voices Open House

April 17: Swing by our High St. office during the Tom Tom Summit & Festival to meet our staff and learn about our work to advance a clean energy future. A Q&A and discussion will follow. Refreshments provided. Time TBA. Free. Charlottesville, Va. Call (434) 293-6373 or email maggie@appvoices.org.

Earth Day Films

April 21, 7 p.m.: Join Southwest Virginia community groups for a showing and discussion of environmental films as well as youth art & essay awards. Free. UVa-Wise Science Center, Wise, Va. Call (276) 479-2176 or visit earthday.org/earth-day-2020

Spring Wildflower Pilgrimage

April 22-25: Explore the flora of the Great

Smoky Mountains National Park with professionally guided hikes, exhibits and more. Registration begins Feb. 24, prices vary. Gatlinburg, Tenn. Visit wildflowerpilgrimage.org

Earth Day Festival

April 24, 5-8 p.m.: The Dan Riverkeeper presents this first annual celebration featuring eco-friendly vendors, a seed swap, live music and more. Free. Stoneville, N.C. Visit tinyurl.com/StonevilleEarthDay

Black Mountain Weekend

May 8-10: Join Pine Mountain Settlement School to explore Kentucky's highest point. \$225 for ages 12+, \$125 for ages 6-12. Lodging, meals included. Black Mountain, Ky. Call (606) 558-3571 or visit tinyurl.com/BlackMtn2020

Mt. Rogers Naturalist Rally

May 8-10: Bring the entire family to the 46th annual rally featuring nature field trips, kids' programs, naturalist talks and more. Price TBA. Troutdale, Va. Call (276) 388-3155 or visit blueridgediscoverycenter.org/mrrr

Appalachian Trail Days Festival

May 15-17: Celebrate Trail Days' 35th year with music, vendors, camping and the annual hiker parade! Stop by the Appalachian Voices table. Event is free, camping fees vary. Damascus, Va. Call (276) 475-3831 or visit traildays.us

Across Appalachia

Oak Ridge Funding is Secure; Waste Cleanup Remains Uncertain

In Oak Ridge, Tenn., a dispute between the U.S. Department of Energy, the U.S. Environmental Protection Agency and the Tennessee Department of Environment & Conservation is on-going over hazardous waste allocation at the Oak Ridge Reservation Superfund site.

The EPA states that the current on-site landfill will run out of space by 2024. The DOE proposed a plan in September 2018 to build an additional 2.2 million-cubic yard landfill that it claims could save the agency more than \$1 billion, according to the Chattanooga Times Free Press. While this proposal includes components of off-site removal, TDEC, according to the Times Free Press, questions the accuracy of this figure and has argued that waste materials should instead be transferred to deserts in the Western United States.

Recent updates over the dispute came as a federal appropriations bill threatened to reduce funding for the Oak Ridge Reservation. TDEC commissioner David Salyers, along with the Anderson County Commission and environmental groups such as Sierra Club and the Southern Environmental Law Center, contested the bill language, warning that cutting federal funds would curtail TDEC's capacity to ensure

Superfund cleanup standards.

The pressure worked. In an email, TDEC Deputy Director of Communications Kim Schofinski wrote that the bill passed in December with updated terms that "restored funding to the grant that funds TDEC's oversight and regulatory efforts."

With funding secured, waste management remains uncertain. Recently, contamination has reached the Clinch River, raising concern for managing a future landfill. Additionally, the DOE seeks to loosen restrictions for permissible radioactive concentrations in the water — something that, Schofinski states, TDEC, EPA, and DOE are "in a formal dispute over."

The EPA, TDEC and four environmental and community organizations have requested that DOE open another public comment period in light of new information. In a February press release, the Southern Environmental Law Center explained that "new studies show a substantial portion of the landfill would actually be below groundwater levels, posing a high risk of contamination."

According to Exchange Monitor, the DOE, TDEC and the EPA postponed a draft Record of Decision over the landfill until June 17, 2020. — *By Ahnya Elias Attea*

Draft Plan for Nantahala and Pisgah National Forests Released

In February, the U.S. Forest Service released its draft 15-year plan and draft environmental impact statement for the Nantahala and Pisgah national forests in North Carolina. A 90-day public comment period runs from Feb. 14 to May 14.

This is the first time that the agency has allowed public participation during the planning stages of a forest management plan. The process began in 2012. Public feedback was robust and at times contentious, and the Forest Service extended their timeline to incorporate comments from individuals and groups.

The plan is divided into four alternatives, one being the status quo. Each strikes a different balance between rec-

reational options, logging, preserving cultural resources and protecting species and water quality. For example, the alternatives set aside different places and overall acreage for wilderness preservation and for logging, and have different goals for trail and road construction and maintenance.

Two of the three new proposed alternatives increase the acreage deemed suitable for timber harvest, but deeper analysis was not available at press time.

View the plan at fs.usda.gov/goto/nfsnc/nprevision. Appalachian Voices will publish further analysis of the plan this spring at appvoices.org/blog — *By Molly Moore*

U.S. Forest Service Public Meetings

March 10, 5:30-8:30 pm: Foothills Conference Center, Morganton, N.C.
March 12, 5:30-8:30 pm: NC Arboretum Education Center, Asheville, N.C. (Parking fee is waived.)
March 16, 5:30-8:30 pm:

Brevard Library, Brevard, N.C.
March 19, 5:30-8:30 pm: Brasstown Community Center, Brasstown, N.C.
March 24, 5:30-8:30 pm: First Presbyterian Church, Franklin, N.C.
March 26, 5:30-8:30 pm: Bentley Fellowship Hall, Mars Hill, N.C.

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About the Cover



Kelly McCoy of Rivergirl Fishing Company casts a line in the renowned New River near Todd, N.C. Read about trout in Appalachia on page 10. Photograph by Lynn Willis of High South Creative. You can view his photography at lynnwillis.com.

State Environmental Agencies See Cuts to Funding, Staffing

From 2008 to 2018, the U.S. Environmental Protection Agency saw a dramatic decline in both funding and staffing — both have fallen by 16 percent. Now, as cuts continue, the Trump administration is shifting environmental protection responsibility into states' hands, despite widespread reductions to states' environmental agency staffing and funding.

A recent report from the Environmental Integrity Project, a D.C.-based environmental advocacy nonprofit, evaluates states' capacities to effectively regulate environmental permitting and

enforcement. Despite states increasing their budgets and U.S. oil and gas industries experiencing an "unprecedented boom," the organization found that between 2008 and 2018, 30 states reduced funding for environmental agencies. Of these, 16 states made cuts greater than 20 percent, and 40 states reduced their environmental agency workforce.

Proponents for the cuts have argued that streamlining state agencies amidst cutbacks will encourage efficiency and cooperation with the EPA. However, the large influx of incoming permits alone

cannot be adequately considered by state agencies, according to the report authors, suggesting these trends will threaten public health and the integrity of natural resources. The authors warn that these agency workers are the "thin green line that protects our families [and environment] from pollution. If we cut that line...we will leave a contaminated landscape that we will not want to pass on to future generations."

For more information, visit tinyurl.com/EIPThinGreenLine. — *By Ahdya Elias Attea*

Percentage change in state funding for pollution control, 2008-2018	
OH	-16%
GA	-21%
KY	-11%
MD	+2%
NC	-34%
SC	+19%
TN	-20%
VA	-6%
WV	data not available

Forest Service Pulls West Virginia Logging Project

In mid-December, the U.S. Forest Service announced plans to withdraw a proposed timber project in West Virginia's Monongahela National Forest. The Big Rock Project, as it was known, called for logging on 2,400 acres of woodlands for timber harvest, road maintenance and general forest upkeep.

The agency stated the project was needed to improve habitat for grouse, deer, turkey and other animal species, as well as to foster conditions for sustainable timber production. But environmental groups including West Virginia Highlands Conservancy, the Center for Biological Diversity and Friends of Blackwater, submitted formal objections in July 2019, citing concerns

about negative impacts on water quality and aquatic species.

The West Virginia Highlands Conservancy states that potential threats to the endangered candy darter prompted the project's cancellation. The fish relies on clean, shallow water and rocky bottoms for shelter and egg-laying, which the environmental groups argued would be buried by excess sediment from the project. Based on the Forest Service's decision, the West Virginia Highlands Conservancy suggests the area formerly slated for the Big Rock Project could be designated by the Fish and Wildlife Service as part of the candy darter's critical habitat. — *By Meredith Alling*

NC Litter-Free Coalition Pays Youth for Trash Cleanup

The North Carolina Litter-Free Coalition, a Murphy, N.C.-based anti-litter group, has developed a "Cash-4-Trash" program with at least 45 businesses and dozens of individual supporters in Cherokee County, N.C.

The coalition is partnered with businesses who are willing to pledge \$100 to individuals and groups of young people who fill trash bags with litter from the county. In order to receive the money, individuals must answer a series of questions about their clean-up and send them to the spokesman of the coalition, Gary Chamberlain.

"Some of the lessons we're trying to teach the kids is something about marketing, sales and performing a service and

getting paid for it," Chamberlain says.

At Martins Creek School in Cherokee County, N.C., Principal Paul Wilson states that the school's participation with the coalition has a positive impact on students. The school conducts regular litter pick-ups and educates students on the negative effects of trash. According to Wilson, the main benefit of participating with the coalition goes beyond a cleaner community — it is also an educational opportunity for the students.

"I'm all about virtue — test scores are important, but good character and civic duty, to me, that's the ultimate goal of education," Wilson says. — *By Carolina Norman*

Water Contamination in Paden City, W.Va.

The water supply of Paden City, W.Va., is contaminated with tetrachloroethylene, known as PCE. It is a chemical typically used as part of the dry cleaning process. The city first announced the problem to residents in March 2019, when levels of the chemical were at 5.5 parts per billion. The U.S. Environmental Protection Agency's maximum contaminant limit is 5 parts per billion.

According to WTOV9, PCE contamination reached 13.5 parts per billion in early February. Residents of the 2,400-population city have also formed

a Facebook page to raise awareness and petition the government to take action. Clean water activist Hannah Spencer started a GoFundMe to raise money for drinking water.

"Everybody is exposed to this chemical in this town because it vaporizes at room temperature," Spencer told WTOV9. "If you take a shower, you're still exposed to this chemical."

The local government is working with state and federal agencies toward a solution to this crisis, according to local news reports. — *By Finn Halloran*

Senate Bill Would Expand Virginia Wilderness

The Virginia Wilderness Additions Act passed through the Senate unanimously on January 6. The act aims to increase the expanse of Rough Mountain Wilderness and Rich Hole Wilderness in Bath County by 5,600 acres. These two wilderness areas fall within George Washington National Forest.

Wilderness designation is the highest form of protection afforded to federal lands. The bill was originally sponsored by Virginia Senators Tim Kaine and Mark Warner, and is now in the hands of the

U.S. House of Representatives.

"We're so thankful to the folks from the U.S. Forest Service, conservationists, and leaders in Bath County for their collaborative efforts to make this happen," said the senators in a statement.

Mark Miller, executive director of the Virginia Wilderness Committee, has pushed for this bill since its inception. "When nature conservancies work with national forest services, as we have done for this bill, we tend to have greater impact," he says. — *By Finn Halloran*

Tennessee Extends Mercury Advisory for Nolichucky Fish

On Jan. 8, the Tennessee Department of Environment and Conservation extended an existing precautionary fish consumption advisory on the Nolichucky River from Douglas Lake to the North Carolina line.

The extended advisory pertains to mercury levels in channel catfish and smallmouth, largemouth and spotted bass. Sensitive populations including pregnant women, nursing mothers, children and people who frequently eat fish from the same body of water should avoid eating Nolichucky fish altogether. TDEC advises others to consume no more than one fish per month. The warning does not affect other activities like boating or swimming. — *By Meredith Alling*

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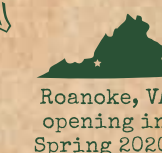


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Hiking the Highlands

Pristine Waters At Bottom Creek Gorge

By Tina Badger

Tucked away in Montgomery County, Va., is a wonderful natural treasure called Bottom Creek Gorge Preserve. In addition to hiking trails, this place is home to the globally rare chestnut lip fern, old growth hemlock forest and Bent Mountain Falls, the second highest waterfall in the state. The falls empty into Bottom Creek, a Tier III waterway. Tier III waters are defined by Virginia as exceptional bodies of water that meet strict criteria. Protection of these creeks and rivers is crucial. Given the designation of Bottom Creek, it might be surprising to learn that the 42-inch fracked-gas Mountain Valley Pipeline threatens the pristine waters of the Bent Mountain community surrounding the preserve.

A drive through the quaint and picturesque community of Bent Mountain, down curvy mountain roads past apple orchards and a winery brings you to the preserve. The Nature Conservancy, a global land conservation nonprofit, began its acquisition of the 1,657 acres in 1988. Appalachian Power donated the 74 acres with Bent Mountain Falls in 1992.

The preserve presently has about 5 miles of hiking trails divided into three separate paths. The trails can be completed as an out-and-back hike or a combination of loops. I previously hiked the Johnston Trail with my eight-year-old grandson, who greatly enjoyed it. The hikes are not too strenuous and are suitable for families. This time, I chose to hike the Knight Trail, take a side excursion on a spur of the Johnston Trail to the falls overlook and complete my hike out on

the Duval Trail. An entrance road leads to all three trails.

From the parking lot, head through a turnstile and down the entrance road. Here, one of the first things that hit me was the lush rhododendrons and the wonderful fragrance of the damp woods. Temperatures here run a few degrees cooler than the Roanoke Valley, so bring layers.

When I hiked, my vehicle thermometer registered about a 10-degree difference!

About half a mile in on the entrance road, the Knight Trail, blazed in yellow, appears on the left. A short way down this trail, you will see a small pond on your right. I had the entire place to myself and found it very serene. Shortly after passing the pond, you will hear the sound of “the kettles” before you see them. The kettles are a series of broad-basin waterfalls formed as Bottom Creek makes its way into the gorge. Just over halfway down the Knight Trail, a short spur leads to Bottom Creek and the kettles. Be sure to pause and enjoy the beauty of this spot! There are ample flat spaces to sit, have lunch and enjoy the pristine nature.

Bottom Creek is a habitat to four rare aquatic species — the orangefin madtom, the bigeye jumprock, the riverweed darter and the Roanoke darter. Ten percent of all fish species found in Virginia can be found in these waters. I spent a good hour listening to the sounds and taking in the scenery.

The Knight Trail continues up past this side spur and eventually intersects with the red-blazed Johnston Trail. Turn-



Water rushes along Bottom Creek, above, in Montgomery County, Va. Photo by Dana Blackmer/The Nature Conservancy. An overlook allows hikers to view the state's second-highest falls, top left. Photo by Glenna Goldman/The Nature Conservancy

ing left and hiking a short distance down the Johnston Trail will bring you to the Malcolm and Jimmie Black Overlook of Bent Mountain Falls. You don't want to miss this spectacular sight, where Camp Creek tumbles 200 feet to meet Bottom Creek, forming the second-highest waterfall in the state. Keep in mind that during dry weather, the falls may not have much water. Both times I have hiked, the falls were spectacular. The overlook is a great spot to sit and enjoy the expansive gorge and appreciate the geology and topography of the area.

To complete my hike, I returned back up the Johnston Trail a short distance and turned left on the blue-blazed Duval Trail, which is rather plain and unassuming after the falls. Of all the trails, it is probably the easiest in terms of elevation gain. The path runs through mixed hardwood and evergreens with areas of thick, brambled underbrush. About halfway to the entrance road, the log remains of an old cabin stand just off the trail, and a bit further up is an old cemetery on the left. It was quiet and eerie the day I hiked. The wind was blowing through the pines and I could almost imagine ghostly voices chattering. Here, the trail

runs through evergreen forest and fields until you reach the entrance road and head back out.

The hike here really gives one an appreciation for the natural beauty of this unique area. Given the status of Bottom Creek, it's easy to see why so many would want to protect it and other natural resources from the potential damage caused by the construction of a 42-inch fracked-gas pipeline.

While the Mountain Valley Pipeline may not cross this preserve directly, MVP has repeatedly allowed excess sedimentation in nearby waterways, such as the Roanoke River and Little Teel Creek. Instead, the waters and lands surrounding areas such as the preserve should be cherished and protected for future generations to enjoy. ♦

Bottom Creek Gorge Preserve

LENGTH: Preserve contains over 5 miles of trails

DIFFICULTY: Moderate

DIRECTIONS: From I-81, take Exit 141 to Salem. Drive 8 miles south on Route 419 to Route 221 at Cave Spring. Take winding Route 221 south for 13.8 miles to Route 644. Turn right on Route 644. After 1.1 miles, veer to the right on Route 669 and

drive for 2.3 miles. After 1.5 miles, bear right. Cross a bridge after 1.3 miles, turn left at the preserve sign. Park on the side of the road at the gate.

CONTACT: Call the conservancy at (434) 295-6106 or visit tinyurl.com/BottomCreek

OTHER NOTES: Open from dawn till dusk. Dogs, fishing and picking plants and mushrooms are not allowed.

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Lawsuits Against Mountain Valley and Atlantic Coast Pipelines Ramp Up

By Kevin Ridder

Communities and organizations fighting the proposed Atlantic Coast Pipeline marked a momentous victory on Jan. 7. The U.S. Fourth Circuit Court of Appeals struck down a crucial air quality permit for a fracked-gas compressor station slated to be located in the predominantly African-American community of Union Hill, Va.

The court stated that when Virginia's State Air Pollution Control Board approved the permit in 2019, it "failed to grapple with the likelihood that those living closest to the Compressor Station — an overwhelmingly minority population according to the Friends of Buckingham Survey — will be affected more than those living in other parts of the same county."

The nonprofit law firm Southern Environmental Law Center represented several advocacy groups in the legal battle including Friends of Buckingham, which was formed by community members in 2015 when lead pipeline developer Dominion Energy bought land in the area.

"For the first time since Dominion showed up in Union Hill, I feel like we've been heard," Friends of Buckingham member and Union Hill resident John Laury told SELC. "My ancestors, Freedmen and Freedwomen from Buckingham, remained here to start a new life in the years after the Civil War. They made a way from no way. Since coming back to Union Hill, we love being able to spend time outdoors on our small farm. It is a connection to the land my ancestors

worked so hard to secure. The court's decision shows that Dominion can't ignore our community and pollute our air."

In addition to environmental justice concerns, the court also stated that the board failed to consider electric turbines as a zero-emission alternative to gas-fired turbines. Virginia regulators must now review the compressor station's air permit to address these problems. Dominion Energy stated that it plans to immediately resolve the issues raised by the court and submit a revised permit to the state.

This marks the eighth time that a federal court or regulator has rescinded a permit for the Atlantic Coast Pipeline since May 2018. Construction on the controversial project remained on hold as of press time in mid-February.

On Feb. 24, the U.S. Supreme Court is scheduled to hear oral arguments on whether the fracked-gas pipeline should be allowed to burrow under the Appalachian Trail. The Fourth Circuit Court revoked the U.S. Forest Service permit in December 2018.

Virginia Attorney General Mark Herring on Jan. 22 asked the Supreme Court to uphold the Fourth Circuit's decision, stating that "the permitting process was rushed and slipshod and driven by [developers'] arbitrary deadlines."

Herring disputes Dominion's claims that the pipeline is needed to fulfill a growing demand for natural gas in Virginia and North Carolina. He points to analyses that show natural gas remaining flat or decreasing for the foreseeable future.



Residents of Union Hill, Va., and hundreds of allies, above, at a 2019 rally against a proposed compressor station nearby. Photo by Cat McCue. "Shame on you!" said West Virginia resident Maury Johnson, left, to state representatives at a public hearing for a bill that would classify a variety of pipeline protests as felonies. Photo by Perry Bennett

On Feb. 5, the Virginia House passed a bill that would require utilities to prove that natural gas infrastructure is needed and cost-effective for ratepayers before the state could approve it. It awaited a decision in a state Senate committee at press time.

Instead of seeking individual permits for each water crossing, pipeline developers can choose to obtain a blanket authorization known as a Nationwide Permit 12. Atlantic Coast and Mountain Valley pipeline developers both lost this key Clean Water Act authorization in fall 2018 due to numerous lawsuits. Mountain Valley has, however, secured exemptions from the Federal Energy Regulatory Commission to bore under select water bodies.

But the U.S. Army Corps of Engineers could be attempting to work around lawsuits challenging the Nationwide Permit 12 by reissuing it for the entire country, according to a fall 2019 notice. Although the permit is not due to be reviewed until 2022, the Army Corps cited a 2017 executive order from President Trump as reason enough to reissue it for the entire country. The order sought to end regulations that could "burden" domestic energy resources.

Each time a Nationwide Permit 12 is renewed, state agencies have the opportunity to try and change the rules to their liking during a review process, which could let them accommodate the

pipelines. Although the Army Corps has yet to issue a timeline for the proposal, Mountain Valley Pipeline developers told shareholders on Jan. 24 that any problems with the permit would be resolved by spring 2020.

Mountain Valley Pipeline

Construction on the fracked-gas Mountain Valley Pipeline remained halted at press time on Feb. 14. FERC ordered developers to stop work on Oct. 15 in response to the project losing key Endangered Species Act permits, although it allowed the company to enact any land stabilization measures that developers deemed necessary. Since then, developers requested a variance from FERC that would allow more construction, but the agency had not responded as of press time.

However, developers racked up at least 30 potential water quality violations in fall 2019, according to nonprofit environmental group Wild Virginia. The organization discovered the problems in a review of Virginia Department of Environmental Quality reports. Wild Virginia called on the VDEQ to penalize the company in a Feb. 6 letter to the agency, stating that the group had not found evidence of enforcement actions for the problems. Mountain Valley developers agreed to pay \$2.15 million to Virginia in October 2019 for more than 300 water quality violations. At the time, the state attorney general said that there would be "much more significant consequences" for any violations that occurred after Sept. 18, 2019.

"MVP is still failing to install and

Continued on page 19

Naturalist's Notebook

Bobcats, the Masters of Camouflage

By Finn Halloran

In the Appalachian Mountains, creatures can creep closer than people know. One of these elusive animals is the majestic bobcat, a feline frequenting the fringes of forests and stalking prey in the wetlands. Agile and patient, these cats hide in trees or flatten themselves among tall grasses to wait on unsuspecting smaller creatures. When hunting larger game like the white-tailed deer, they use the night to their advantage, striking while the deer sleep.

Bobcats have long been hunted for their prized skins. Pelt prices skyrocketed in the 1970s after countries enacted restrictions on hunting cheetahs and leopards. The market hit a high in 2006, when more than 50,000 bobcat skins were exported from the United States. Today it is still legal to hunt these felines in 38 states.

Bobcat populations are not at risk in North America, though they are struggling in some areas. In New Jersey, the bobcats are listed as endangered by the state due mostly to hunting and rapid urbanization.

A typical bobcat in the Appalachian region sports a sleek tawny coat sprinkled with black and white spots. Their fur leans toward grayer colors in the winter. These mostly nocturnal hunters have large, intelligent eyes and their faces are framed by insulating fur. Far from their cuddly cousin the housecat, bobcats' sharp teeth and vicious claws serve as a reminder that they are predators. Their tufted, pointy ears are one of the bobcat's most useful tools in identi-

fying prey. The short bobbed tail, almost comically small at around six inches, is the most surefire way to identify them.

Aimee Rockhill has studied the bobcat since 2008 and is an assistant professor of biology at Western Carolina University. She states that the best way to get a glimpse of these sneaky cats is with cameras, as they tend to be shy and conceal themselves from the human gaze. Rockhill uses GPS collars to keep track of the movements of bobcats in the hardwood forests of the North Carolina mountains, and goes into the field to investigate more closely. She is looking for scat to give her clues about diseases, parasites and dietary habits of these creatures.

Bobcats will venture into more urban areas if their resources are depleted. With rapid urbanization, the bobcats are ranging closer to cities and suburbs. Male home ranges are typically about 25 to 30 miles, while the females take up only about 10 miles. This allows the males to access multiple female ranges. Normally wary of people, this secluded species is very good at hiding from humans, even when it is just 15 or 20 feet away.

"Just because you don't see them, doesn't mean they don't see you," Rockhill says.

The Wildlife Center of Virginia, a nonprofit wildlife hospital near Staunton, has only seen eight bobcats since 2012. Their most recent cat, a female kitten affectionately dubbed Bobcat #19-2408, was found in Floyd County in July.

This bobcat had been found inside a chicken coop, and was possibly without a mother. Bobcats do leave their mothers

around seven or eight weeks after birth, but in the case of this kitten, it seemed premature. The kitten sometimes evaded the sight of the veterinarians inside the enclosure, which they considered to be a healthy sign. Bobcats rely on their stillness and sneaking abilities for both hunting and survival, and it may be their greatest attribute.

The Wildlife Center will nurse and keep injured animals until they are ready to be reintroduced into the wild. Bobcat #19-2408 will be kept until the spring, when kittens traditionally separate from their mothers. Although this center does not see many bobcats, the majority of the cases that come to them



A bobcat sits in a tree. Photo by Gary Kramer, USFWS

are from automobile accidents.

Increasing urbanization and road building are putting potentially deadly hazards in the habitat of the bobcat. Highways through the home range of a bobcat could potentially make a whole section of territory unreachable.

Even though human expansion creeps into the bobcats' territory, they remain sly. Champions of hide-and-seek, the ferocious bobcat could be lying in wait, or just as likely taking a nap on a branch high above. ♦

MVP Southgate Environmental Statement Released

On Feb. 14, the Federal Energy Regulatory Commission published the final environmental impact statement for the Mountain Valley Pipeline's Southgate extension. The proposed pipeline would extend the unfinished 303-mile fracked-gas pipeline by another 73 miles from Pittsylvania County, Va., into North Carolina's Rockingham and Alamance counties.

While FERC incorporated some considerations from last year's public comment period, the commission ultimately decided that the pipeline's impacts on the environment would likely be mitigated by developers. Critics of the decision — including Appalachian Voices, the publisher of this newspaper — doubt

this, citing the company's extensive track record of environmental violations.

"FERC's conclusion that approval of MVP Southgate would result in 'less-than-significant' adverse environmental impacts flies in the face of the reality of Mountain Valley's performance to date," said Pittsylvania County resident Katie Whitehead, who lives in the path of MVP Southgate.

The N.C. Department of Environmental Quality has questioned whether Southgate is needed. NCDEQ must grant developers a Clean Water Act permit before construction could begin.

For updates, visit appvoices.org/blog.

QUICK FACTS:

- » Bobcats never forage for food
- » Prime time for hunting is at dawn or dusk
- » Bobcats are real estate fiends; one can have several dens
- » Ancient people may have kept bobcats as pets
- » The average bobcat lifespan is between 5 and 15 years
- » Bobcats have been known to stalk prey up to 7 miles
- » Low-flying birds can be prey for bobcats, as they are excellent jumpers
- » Bobcats can run up to 30 miles per hour
- » Bobcats place their back feet where they placed their front feet when hunting to reduce noise

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The Lure of Appalachian Trout

A bass fisherman explores the conservation and sport behind trout fishing

By Austin Counts

Growing up in the Appalachian Mountains, it's impossible not to feel connected with the beautiful lands and waters that make them so unique. For me, that connection is found on the water. Not in the adrenaline-inducing rapids, nor in tubes floating down flat waters. Like many others, my fascination with the water is thanks to its fantastic fishing opportunities.

This is what I grew up doing — scouring the wooded lake shores and rocky river bends, seeking that next battle with the majestic creatures just beneath the water's surface. Despite my preference for bass, it is far from the only game fish in the region. In fact, many waterways throughout the Appalachians offer a one-of-a-kind, breathtaking trout experience.

To learn more about trout fishing in Appalachia, I reached out to Daniel Williams, a fly fishing guide at Clinch Life Outfitters in St. Paul, Va. We sat down together at the local brewery to discuss what makes trout fishing exciting. For him, there isn't a simple explanation.

"It is a lot of things," Williams says. "It's understanding the complex behaviors of animals and the inner workings of the ecosystem and, on a very real level, puzzling out what is going on beneath the water. It is having a brief interaction with a wild animal and leveraging your own knowledge against nature."

He explains that though wrestling with large, hard-fighting fish is the draw for some, anglers often find themselves in the most gorgeous landscapes in the Appalachians while seeking the perfect place to cast their line.

Among other fish, brown, rainbow and brook trout can be found wild throughout the region. Though not all of these species are native, for thrill-seeking anglers like Williams and his clients, they provide additional fishing opportunities.

"If there was a trout to fetishize, it would be the brown

trout," Williams says. "From between 20 to 28 inches they go through such a transformation that they become gnarly. They get this big humped back and hook jaw."

Thanks to their size and strength potential, the European species is a huge hit with fly fishers nationwide.

"From a tourism perspective, it's brown trout that draw the most people," says Williams. "The South Fork of the Holston River produces unbelievable numbers, whether that be the size or volume of fish."

In fact, the Virginia state record brown trout was pulled from these waters. At 14.75 pounds, it was nearly the weight of a full-size bowling ball.

Rainbow trout, another non-native species, originated in Pacific drainages along the Western United States and parts of Asia and Russia. These powerful, flashy fish often find themselves leaping into the air during their high-energy bouts with anglers. For the casual fisher, rainbows are the most likely targets because they are preferred by the states' put-and-take programs, which stock trout in designated waters for the



The Clinch River in Southwest Virginia is a popular fishing destination. Photo courtesy of Clinch Life Outfitters



An angler holds a brown trout in Dickenson County, Va. Photo courtesy of Clinch Life Outfitters

sole purpose of harvesting.

"There are a ton of people in Appalachia that take advantage of the put-and-take of rainbows," Williams says. "It's not talked about much, but hunting and fishing for retirees or disabled people can be a significant portion of their protein sources during the wintertime."

Though not technically a trout, rather a trout-like charr, brook trout are Appalachia's only native salmonid and present an appeal all their own. Williams lightheartedly claims, "some people are willing to climb mountains and stand on their head or on one knee to catch an 8- or 6-inch fish because they are so beautiful and native to the area."

But don't be fooled by their small size.

"A wild brook trout in nature can be one of the most voracious fish I have ever seen," Williams says. "In Grayson Highlands State Park, a trout will hit a fly three or four times in a row in a matter of seconds. When you get them fired up, they are really fun."

The love for this native fish is so strong that brook trout, including the Southern Appalachian brook and West Virginia Golden brook, are the state fish in six Appalachian states.

I really enjoyed my conversation with Williams, and the local beer, but trout fishing is about more than just catching. To get a hold on conservation efforts in

Appalachia, I met with Stephen Owens, a fisheries biologist at Virginia's Department of Game and Inland Fisheries. Region-wide conservation efforts are taking place to preserve Appalachia's cherished brook trout. This goes as far as protecting species genetics.

Owens explains, "We try to do what we can to reduce impacts to [native trout] populations. We look to keep those genetics pure in the Southern Appalachian brook trout's streams. We make sure that we are not stocking hatchery brook trout into those streams where there might be some genetic interchange."

Another concern for the brook trout is competition with non-native trout. In some locations, the introduction of rainbow trout has inadvertently placed brook trout populations in peril. The Great Smoky Mountains National Park reports that rainbow trout have consistently out-competed the brooks, taking over around 75 percent of their native range.

But according to Owens, this is not always the case.

"I don't think you can make it an across-the-board-statement," he says. "You have some sites that have had major impacts with predators coming in and limiting the brook trout populations, and some areas where they are working well together."

Despite the threats brook trout face, the species is widely seen as premier sport fish. To limit the impacts of fishing on brook trout fisheries, as well as wild brown and rainbow trout, many regulations exist to protect prime wa-

Continued on next page

Appalachian Trout

Continued from previous page

ters. Regulations on bait use, harvesting size, catch-and-release waters and single-point hook requirements protect the trout by mitigating fishing impacts in healthy or recovering populations.

Trout populations depend on cold, high-quality rivers and mountain streams. Conservation of this habitat is critical to ensure the sustainability of any trout fishery. Owens is most concerned with the effects of human development.

"I think with most of our resources, particularly in our more developed locations, habitat degradation plays a more critical role in limiting our cold-water resources," he says.

Heavy sedimentation from reduced vegetation along the water's edge hinders invertebrates, which are trout's main food source. Warmer water temperature from paved surface runoff impacts trout spawning and the number of young fish entering the population, inhibiting the growth and sustainability of wild populations.

Further degradation can be caused by poor land practices related to agriculture, livestock and forestry, which can increase sedimentation and introduce bacteria, pesticides and herbicides into nearby streams. However, according to Owens, state programs have made a positive difference on these issues. These programs include sharing best management practices with farmers and livestock owners while making sure not to negatively impact their business, and working with forestry operations to avoid logging up to the streambank.

"You look at a lot of our streams, as well as a lot of the areas in the Southern Appalachians, and things have improved quite a bit since the '60s and '70s," Owens says. "That doesn't mean there aren't some sites that are at risk, but as a whole, I think we are heading in the right direction."

However, in some parts of the mountain range there is another large contributor to stream degradation — acid mine drainage. This pollution is a product of outflowing water from coal mines and can have many negative impacts on trout populations and habitats. To learn more, I looked to Trout Unlimited, a nonprofit organization that works across the nation to preserve freshwater fish habitat.

In a Trout Unlimited report, Northeast Habitat Program Director Amy Wolfe states, "Abandoned coal mine drainage still renders over 13,000 stream miles nearly lifeless throughout the Appalachian coal region, with the highest concentration of more than 5,500 stream miles found in Pennsylvania. The good news is that we are indeed making progress."

Trout Unlimited reports warn that these outflows can produce precipitates that clog the gills of fish and other invertebrates. Acid mine drainage can also drop pH levels enough to cause respiratory failure in fish and issues with bodily fluid regulation, while diminishing fish growth rates and reproductive abilities.

To get an idea about how mine drainage is treated, I called Shawn Rummel, Trout Unlimited's field and research manager in Pennsylvania. To reduce acidity and remove precipitates, Rummel says that usually, "a series of ponds and wetlands are lined with alkaline material, typically limestone. The water goes into the ponds and as it reacts with the limestone, it's increasing pH."

This reaction also caused metals, such as aluminum and iron, to precipitate out. After flowing through a series of these man-made wetlands, the stream is ready to re-enter its natural channel.

Treating acid mine drainage is a long and expensive process. On this, Wolfe wrote, "I like to remind folks that in the abandoned mine cleanup world, we celebrate restoration successes in feet. Little by little, one at a time, we celebrate each aquatic insect that returns, and each brook trout that makes its way downstream to the newly restored section of stream to claim its new home."

Appalachian trout also face the threat of exotic parasitic diseases such as whirling disease, a European disease that's causing havoc in some Western fisheries. Whirling disease is connected to the lifecycle of a tubifex worm that hosts the disease-causing parasites. With its presence in multiple Appalachian states, I asked Owens to clear up the waters on whirling disease in Southwest Virginia.

"We have not documented any clinical signs of whirling disease in any of our wild trout populations," he says. "In recent years, we have been evaluating the health of wild trout populations at some of our more popular streams and we plan to continue additional testing at other waters on an annual basis."

Owens explains that the habitat out-



A woman casts a fly line near the town of Lebanon in Russell County, Va. Photo courtesy of Clinch Life Outfitters

West is much more conducive to the disease than Appalachian streams. Still, wildlife officials have found the parasite and the disease itself across the region

in some rivers, including in Western North Carolina and East Tennessee. So far, it has been shown to have minimal effect on Appalachian trout populations. In 2018, the Tennessee Wildlife Resource Agency Trout Biologist Sally Petre reported, "so far, there has been no indication of negative impacts of whirling disease in the South Holston and Watauga tailwater trout populations."

The largest concern from the presence of the disease in several waterways is the transmission to more susceptible wild trout populations. The parasites can survive unseen on fishing apparel, which is another reason anglers should routinely clean and dry their fishing equipment. Additionally, Owens assures me that states are careful to ensure that the disease is not being actively introduced into local waters through

trout stocking.

I'm still a bass fisherman at heart, but delving into the front lines of trout fishing and conservation drove home that fishing is not just about catching the biggest or strongest fish — it is about experiencing nature in a truly exceptional way with friends and family. It is preserving trout fisheries by protecting and improving the natural habitats that trout depend upon. It's about making sure that human presence and activities do not imperil these truly beautiful and wild residents of Appalachia. Perhaps, the true "trophy" trout of the Appalachians is a gorgeous brook, brown, or rainbow trout wild in pristine, silvery creeks or rivers, tucked deep in the mountains, protected and cherished by biologists, nature lovers and anglers alike. ♦



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Electric Costs on the Rise

It's not your imagination — utilities are seeking rate increases more frequently

By Kevin Ridder

On a Thursday night in early January, around two dozen people line up to pass through the metal detector of the Burke County Courthouse in Morganton, N.C., for a public hearing.

The N.C. Utilities Commission is holding the hearing as it considers a proposed rate hike that would increase utility bills by approximately \$100 a year for the average Duke Energy Carolinas ratepayer in the state. At the same time, the company's sibling Duke Energy Progress is also requesting their own rate increase. Both of these are happening only two years after the companies' last rate cases in North Carolina.

These changes would result in a 14.3 percent average rate increase for Progress residential ratepayers and 6.7 percent average increase for Carolinas residential ratepayers in the state. South Carolina approved residential rate increases of 6.3 percent and 3.7 percent for Progress and Carolinas, respectively, in 2019, three years after their last rate hike.

According to the U.S. Energy Information Administration, electric utilities have regularly increased the frequency of requests to state regulatory boards to change the amount they can charge their customers since 2000. In 2018 alone, 78 major utilities proposed rate increases.

The prices that regulated, investor-owned utilities like Duke can charge customers are set by state commissions. These prices cover capital investments and operating costs, plus a guaranteed

profit, or "return on equity." The more a utility spends on approved infrastructure projects, the larger a profit they receive for shareholders.

In 2019, Kentucky Utilities and Louisville Gas & Electric were both awarded rate increases after already receiving them in 2017. West Virginia regulators approved a rate increase for Appalachian Power ratepayers in February 2019 after previously allowing rates to go up in 2011 and 2015 — resulting in a 25 percent increase in electric bills since 2014, according to the Herald-Dispatch.

And the federally owned Tennessee Valley Authority raised its wholesale electricity rates, the price it charges local power companies, six times between 2012 and 2018.

The Energy Information Administration states that the number of rate cases, or utilities' requests to change the amount they charge their customers, typically reflects changes in the costs of electricity generation and delivery. But in 2018, the reasoning behind many of these rate cases included what utilities are branding as "grid modernization and improvement." Matt Wasson, director of programs for Appalachian Voices, the nonprofit environmental organization that publishes this newspaper, explains how these new types of investments are different.

Over the last century, electric utilities in the United States have made money by building and expanding the grid. But with fewer large invest-



Dozens of North Carolina residents turned out to speak out against Duke Energy's requested rate hike on Jan. 29 in Graham, N.C. Photo by Karen Bearden

ment opportunities in recent years, utilities have had to find other ways to continue generating profits for their shareholders.

"Grid modernization is a new thing that utilities are trying to spend billions of dollars on to make a more efficient and storm-resistant grid," says Wasson. "What they're also trying to do is repackage a lot of routine maintenance that they don't make a lot of return on, like it's a big new investment."

In the case of Duke Energy Progress' and Carolinas' latest rate increase, Duke claims that these rate hikes in North Carolina are necessary to shift to "cleaner energy" and to improve grid resilience. By 2034, Duke Energy Progress plans to source 19 percent of their power from renewables and 57 percent of their power from natural gas, the latter of which worsens climate change through methane leaks during extraction and transport. Duke Energy Carolinas plans to source 16 percent from renewables and 32 percent from natural gas by 2033.

Additionally, Duke is seeking to charge ratepayers for costs that will be incurred from moving nearly 80 million tons of coal ash from unlined pits into lined landfills. A years-long legal dispute resulted in a settlement in January between Duke and state regulators to excavate the material. The settlement is the result of a lawsuit filed by the nonprofit Southern Environmental Law Center on behalf of numerous environ-

mental organizations including Appalachian Voices (read more on page 14).

On their website, Duke reasons that ratepayers should pay for coal ash cleanup because "the cost of that service is a responsibility we all share as consumers of electricity." But Rachel Velez, with environmental nonprofit Clean Water for North Carolina, argued otherwise in a Jan. 26 Times-News op-ed.

"Duke's coal ash management decisions weren't open for public input at all," wrote Velez. "Customers should not be held responsible for Duke's stunningly poor decision making."

Appalachian Voices' Senior Energy Analyst Rory McIlmoil added to the arguments against the rate increase at the public hearing in Burke County, N.C.

"This rate case is just another example of Duke failing to address the climate crisis by not rapidly transitioning North Carolina to a fully decarbonized, clean energy system," said McIlmoil. "It is another example of Duke trying to prop up their outdated business model by spending billions of dollars on outdated technologies and on infrastructure maintenance in order to maximize profits for their shareholders."

McIlmoil also rebuffed Duke's request to increase their profit margin from 9.9 percent to 10.3 percent.

At a Jan. 15 public hearing in Franklin, N.C., Duke Carolinas ratepayer Katie Breckheimer spoke out against

Electric Costs

Continued from previous page

the utility's latest rate increase request.

"Duke is paying their top executives and stockholders millions of dollars, plus, we, their customers, are paying for Duke's lobbyists in order to keep the status quo," said Breckheimer. "We're captive customers. We can't shop around for a better company."

Southwest VA Rate Spike

In July 2019, Old Dominion Power filed a proposal to increase rates for Southwest Virginia communities by \$12.7 million — an average of nearly \$30 per month for residential ratepayers. This is one of the highest rate hikes proposed by any investor-owned utility in the country in 2019, and it was the second-highest proposed increase for the average residential customer at the time it was filed.

Appalachian Voices formally intervened in the case, asking regulators to deny the rate increase in fall 2019. The group stated that it would disproportionately impact low- and fixed-income residents and those who attempt to save money through energy efficiency or renewable energy, especially because the proposal included an increase in residential fixed charges from \$12 per month to \$16.13 per month.

Old Dominion serves one of the most economically distressed areas of the commonwealth, where between 17.6 percent and 28.2 percent of residents live in poverty. Additionally, it does not offer any energy efficiency programs to its Virginia customers and powers 99 percent of its operations with fossil fuels.

"A roughly \$29 dollar average monthly increase would be devastating for poor and low-income people's livelihoods at a time when our region is already economically, socially and environmentally distressed," said Big Stone Gap resident Adam Malle at an Oct. 2 public hearing in Norton.

"For myself, this rate increase will potentially cost me a tank of gas, nearly a week's worth of food, nearly half of my water bill, or two-thirds of my phone bill. Which of these things does Old Dominion Power expect fixed-income people to give up in order to compensate for their failing to adapt to changes in the energy market?"

In mid-January, State Corporation Commission staff and Old Dominion Power agreed on a reduced increase



Appalachian Voices' Senior Energy Analyst Rory McIlmoil testifies at a public hearing for Duke Energy's requested rate hike on Jan. 16 in Morganton, N.C. Photo by Jimmy Davidson

request of \$9 million, and the SCC held an evidentiary hearing on Jan. 22. The full commission is expected to make a decision in early 2020.

In the Legislatures

On Jan. 16, North Carolina and South Carolina policymakers announced an interstate legislative effort to evaluate the costs and benefits of electricity market reform. The representatives are backing legislation that would require the states to study the creation of a regional transmission organization encouraging utility competition.

N.C. Rep. Larry Strickland told the Charlotte Business Journal that both states are looking at "transitioning from vertically integrated monopoly structure to a market-based system that puts the interest of utility customers at the center of the discussion."

The South Carolina bill awaited decision in committee as of press time in mid-February. North Carolina's legislative session begins in April.

This comes after a 2019 effort by Duke Energy to have legislators pass a controversial ratemaking bill through the North Carolina General Assembly. The most hotly debated portions of Senate Bill 559 were eventually cut; the final version, passed in the fall, authorized Duke to finance storm recovery costs through means other than charging ratepayers for those costs.

Introduced in early April 2019, the original S.B. 559 would have allowed Duke to also pursue multi-year rate hikes with less accountability. This would have let Duke request and potentially receive advance approval for rate increases for future costs, and these rates would have been set even if new technology or other factors later caused prices to drop. Energy Justice North Carolina, a coalition of environmental and consumer protection

"You also saw advocates and Duke Energy pulling out all the stops."

Duke included several of its requests from S.B. 559 in its late 2019 rate hike proposal for its North Carolina subsidiaries, including for multi-year rate increases.

In Virginia's 2019 election, voters elected 40 delegates and nine state senators who refused campaign contributions from Dominion Energy and other monopoly utilities in the state. This is in stark contrast to previous years.

For example, between 2013 and 2015, Dominion donated \$1.6 million to statewide and legislative candidates, according to the Virginia Public Access Project. Then in 2015, the state legislature froze Dominion's rates at an artificially high point for three years, resulting in hundreds of millions of over-earnings for the monopoly utility. While Dominion was eventually forced by the legislature to refund \$200 million back to ratepayers in 2018, the State Corporation Commission estimates that the utility overcharged ratepayers by \$1.3 billion.

With a new crop of state representatives, however, utility influence in politics in Virginia looks to be weaker than ever before. During the 2020 Virginia General Assembly session — which was still underway at press time — legislators introduced several bills opposed by Dominion that are aiming to reform energy policy in the commonwealth.

In January, Del. Mark Keam (D) and Del. Lee Ware (R) introduced the bipartisan Virginia Energy Reform Act. The bill would limit monopoly utilities to just owning and maintaining electricity transmission and distribution infrastructure, taking them out of the business of generating and selling power. It also includes provi-

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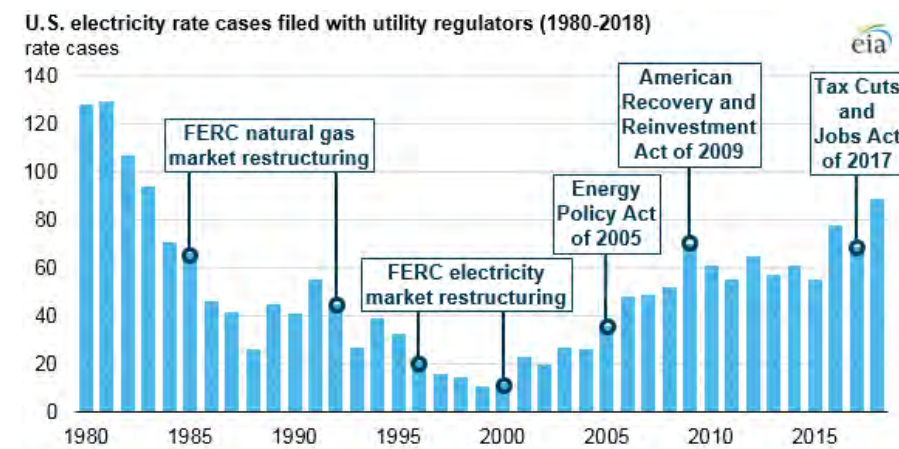


Chart from the U.S. Energy Information Administration

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Beginning of the End of North Carolina's Coal Ash Crisis

Special from the Appalachian Voices Front Porch Blog

By Cat McCue

On Jan. 2, North Carolina announced a historic settlement with one of the state's most powerful corporations and polluters, Duke Energy. The settlement requires Duke to move nearly 80 million tons of toxic coal ash at six of its power plants to properly lined landfills onsite or recycle it.

The announcement brings to a close years of struggle and endurance by citizens from across the state who demanded full redress of the coal ash crisis that had gripped their communities. It was also a rare moment when those fighting for environmental justice can mark a definitive victory. Appalachian Voices, the nonprofit advocacy organization that publishes this newspaper, was involved throughout the fight — reaching out to and standing with communities, pushing regulators and politicians to do more, testing drinking water wells and surface waters, and participating in the multi-prong legal fight led by the nonprofit Southern Environmental Law Center.

In January, more than 40 community members and activists, including several Appalachian Voices staff members, joined in Walnut Cove, N.C., for a celebration of the victory. But it was also an occasion of sorrow for the many community leaders lost during the struggle — including Danielle Bailey-Lash, who



Danielle Bailey-Lash, upper right, lived near Duke Energy's Belews Creek power plant and coal ash ponds. Diagnosed with brain cancer at the age of 35, she passed away Nov. 30, 2019. Her fellow activists honored her life, along with other community leaders lost during the struggle. Above, the ACT Against Coal Ash coalition held a press conference in 2018 to call attention to residents' 1000th day of living on bottled water. Photos: Appalachian Voices. Bottled water for drinking, cooking, cleaning and bathing crowded Amy Brown's living room near Duke's Belmont coal ash pond. Photo by Amy Brown.



lived near one of the largest coal ash ponds in the state, at Duke's Belews Creek power plant in Stokes County. A determined community advocate who fiercely loved her family, Bailey-Lash died of brain cancer in late November.

The Dan River Disaster

In February 2014, 39,000 tons of coal ash spilled into the Dan River when a drainage pipe collapsed at a shuttered power plant owned by Duke Energy. Some view that event as the start of the coal ash crisis in North Carolina, but in fact, communities near the utility's coal plants had been voicing their concerns for a long time. Scientists found toxic elements like arsenic and hexavalent chromium in coal ash, and a lawsuit had already been filed asserting that coal ash ponds at all 14 of Duke's power plants in North Carolina were leaking.

Appalachian Voices staff had been connecting with communities around the larger of these sites, particularly in Walnut Cove near Duke's Belews Creek power plant, and in Bel-

mont near the G.G. Allen plant. The aim was to ensure residents had access to complete information about coal ash, not just information provided by Duke Energy or state officials.

The communities began forming local groups to reach out to more neighbors, and asking officials questions about the threats. After the Dan River spill, residents of Walnut Cove, Belmont, and many other communities across the state rose up to demand that the legislature, state agencies and Duke Energy resolve the coal ash crisis. Within months, they had gathered 9,000 signatures on a petition demanding that Duke take full financial responsibility for cleaning up the Dan River spill, and that it excavate coal ash from leaky, unlined pits to dry, lined landfills away from water bodies.

Community voices kept intense public focus on the crisis long after the spill. The close connection between the utility and state regulators (under the administration of then-Gov. Pat McCrory, who had previously worked for 29 years at Duke Energy) came to light in a torrent of state and national media reports. The U.S. Attorney's office launched a criminal investigation and a year later, in February

2015, reached a plea deal with Duke for \$102 million for violations of the federal Clean Water Act.

Foot-dragging and Finger-pointing

Under intense pressure from citizens, the N.C. state legislature passed the Coal Ash Management Act in 2014, setting a framework for cleaning up of Duke's 30-plus coal ash pits around the state by 2029. The Dan River site was among the first on the priority list and was scheduled to be closed by 2019.

But over the next several years, the N.C. Department of Environmental Quality's proposed rules consistently fell short as the agency tried to advance a closure method known as "cap-in-place" — essentially throwing a massive plastic sheet over the unlined pits, which does not prevent toxins from leaching into drinking water. The agency also continually shifted its priorities for cleanup.

In the state legislature, lawmakers tried to weaken the 2014 law while Duke Energy's lawyers fended off multiple lawsuits and lobbied for favorable coal ash legislation.

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NC Coal Ash

Continued from previous page

Meanwhile, hundreds of families near Duke's coal plants were using bottled water for drinking, washing, cooking and cleaning, having been told by state officials their well water was unsafe. In one of the more stunning events of the saga, the state epidemiologist abruptly resigned in 2016, accusing the McCrory administration of misleading the public about well water safety advisories. By January 2018, four years after the Dan River spill, many families marked their 1,000th day of living on bottled water, and they once again demanded full cleanup of coal ash sites.

Never Doubt Committed Citizens

Time after time, citizens showed up at NCDEQ public hearings, refusing to accept half-measures or excuses. They spent hours studying the proposed rules, talking with each other and with experts to understand the implications, educating others and organizing their communities. They held rallies outside Duke's corporate headquarters and sent masses of postcards to the governor. They talked with the press, with researchers and scientists and lawyers. They made allies with the NAACP's Rev. William Barber, who helped amplify their message in the state capital during his "Moral Mondays" events.

In 2015, Appalachian Voices helped bring together North Carolina local groups and community leaders for a conversation. From that formed the Alliance of Citizens Together Against Coal Ash, a statewide coalition to unify their voices into a more powerful force on the issue.

As late as 2019, when the state was still pushing "cap-in-place" as an accept-

able resolution at several coal ash sites, ACT Against Coal Ash refused to accept it. They turned out dozens of people to vigorously reject NCDEQ's plans at yet another round of public hearings.

On April 1, 2019, communities across the state were rewarded with the news that the NCDEQ was ordering Duke to excavate all six of its North Carolina coal ash ponds that did not yet have closure orders in place.

"This decision does not come down to a matter of cost," said Caroline Armijo with Residents for Coal Ash Cleanup in Belews Creek. "It comes down to compassion and respect for the lives of the people who love this state and their homes."

Duke Energy appealed the order, but the Southern Environmental Law Center intervened in the case on behalf of seven organizations, including Appalachian Voices. And on Jan. 2 of this year, the state announced a settlement that definitively requires Duke to excavate its ash ponds. The vast majority of the coal ash currently in unlined pits will be put in lined landfills on Duke Energy property, some will be recycled into building materials, and a small amount will remain at the Marshall and Roxboro sites with heightened protections and monitoring.

And so, after participating in countless community meetings and public hearings, after contending with life on bottled water, after extensive research and litigation, after speaking with the media, legislators and neighbors — after all this and more, communities across the state and their supporters began 2020 in celebration.

These "accidental activists" are proof of Margaret Mead's maxim: "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has." ♦

Electric Costs

Continued from page 13

sions to implement cost-effective energy efficiency programs, remove barriers to customer-owned energy like rooftop solar, and build in consumer protections like a low-income bill assistance program. The bill is supported by the Virginia Energy Reform Coalition, a group of stakeholders that includes Appalachian Voices. A state House sub-committee tabled the bill for

consideration in 2021.

Another bill introduced in Virginia is the bipartisan Fair Energy Bills Act, which would restore the authority of the State Corporation Commission to review electricity rates and set profit levels for Dominion Energy. Del. Ware also introduced a bill that would ensure the commission's ability to review contracts entered into by monopoly utilities to purchase space, or "capacity," on gas pipelines to fuel their power stations. This could prevent costs

Tennesseans Raise Coal Ash Concerns

By Molly Moore

Opposition to a proposed coal ash landfill is running strong in Anderson County, Tenn. The Bull Run power plant is scheduled to close by 2023, and the Tennessee Valley Authority plans to build a new landfill nearby to store coal ash in the community of Claxton, Tenn.

At press time, the Anderson County Commission was planning to hold a public hearing on Feb. 18 regarding the proposal. The Jackson Law in Tennessee allows local governments to deny permits for landfills within their boundaries, although, according to County Commissioner Catherine Denenberg, TVA has contended that law does not apply to them. Denenberg states that the county is currently working to block the permit that TVA is seeking in order to turn the property it purchased in Claxton into a new landfill.

Local residents and elected officials, along with community and environmental groups, have been holding meetings to discuss the coal ash storage options and how to prepare for Bull Run's coming closure. Currently, 5 million tons of coal ash is stored at the site near the Clinch River, and TVA stated in July 2019 that it does not plan to move the ash unless required to.

In February, a couple living near Bull Run sued the utility, alleging that pollution from the facility is responsible for health problems experienced by their children that include neurological, lung and heart issues.

Also in February, a grand jury in Roane County, Tenn., called for a criminal investigation into the treatment of

workers who cleaned up TVA's 2008 Kingston coal ash spill under the direction of TVA's subcontractor, Jacobs Engineering.

Hundreds of workers claim they were sickened from working at the toxic waste site without protective gear, and nearly 50 have died as of February. In multiple lawsuits, more than 200 plaintiffs have sued the contractor, and 72 workers won an initial case in November 2018. Due to the plaintiffs' urgent medical needs, the judge ordered that the parties come to a settlement. That mediation process was underway at press time in mid-February.

In January, the U.S. Environmental Protection Agency closed comment periods for proposed changes to two rules intended to protect water and human health from the heavy metals and other wastes associated with burning coal for electricity. The EPA is modifying the 2015 federal coal ash rule by delaying closure timelines and weakening other provisions.

The agency is also rolling back aspects of a 2015 coal wastewater rule that limits how much mercury, lead and other heavy metals coal plants can dump into waterways. TVA asked EPA for special exemptions that would allow the Cumberland Fossil Plant — its largest and most polluting power plant — to discharge 20 times as much mercury as smaller power plants. The EPA's proposal complies with TVA's request.

The publicly owned utility has acknowledged that waste is leaching from the Cumberland plant's unlined coal ash ponds and plans to break ground on building a dry, lined landfill in 2021. ♦

from being passed on to ratepayers.

As the backlash against monopoly utilities plays out in state legislatures, ratepayers on the receiving end of proposed cost increases are making their voices heard. Utilities may be requesting more rate hikes, but more and more legislators are refusing utility money, and communities continue to protest rate hikes.

Victoria Estes, an Asheville, N.C., resident and volunteer for the nonprofit Center for Biological Diversity, was one

of several Duke customers who spoke against the utility's request for a rate increase at a Jan. 15 hearing in Franklin, N.C.

"By people continuing to stand up and hold corporations like Duke accountable for their sneaky, underhanded investments in fossil fuels," said Estes, "we can demand that our hard-earned money doesn't go into the pockets of these that are poisoning our communities and profiting off of our most valuable asset, which is the planet that sustains our life." ♦

Betting the Farm on a “Wild West” Hemp Economy in Appalachia

Ever-changing laws and regulations, a saturated CBD market and high operating costs are stressing the region’s industrial hemp farmers

By Michael M. Barrick

Union, W.Va, a tiny, no-stoplight town in southeastern West Virginia, is the hotbed — literally and figuratively — of the emerging hemp economy in Appalachia. That’s because the hemp farmers here in Monroe County are hot at the state Department of Agriculture for destroying much of their crop this past growing season because they were deemed too “hot” — that is, over the ceiling of 0.3 percent THC set for industrial hemp. Those regulations were approved by the U.S. Department of Agriculture under the federal farm bill that became law in December 2018.

Many West Virginia farmers had difficulty staying under the THC ceiling because of the method the state used to test THC levels. As opposed to just testing delta-9 THC, as some other states had done, West Virginia also tests THC-A levels. Delta-9 THC is the primary psychoactive ingredient in marijuana. Only tiny traces of it are found in industrial hemp. THC-A is non-psychoactive but can become delta-9 THC when heated. Yet, THC-A will increase total THC concentrations.

That won’t change in 2020 because the U.S. Department of Agriculture has temporarily adopted proposed regula-



Hemp farmer Heather Bryant transplants seedlings at her and her husband’s farm near Collettsville, N.C. Photo courtesy of Heather Bryant

tions virtually identical to those used by West Virginia in 2019. The USDA closed the comment period on Jan. 31, 2020, for the establishment of a domestic hemp program under the 2018 bill. So, through at least Nov. 1, 2021, the new guidelines will apply to farmers in every state.

Prior to 2018, the 2014 U.S. Farm Bill stated that the only lawful purpose for which industrial hemp may be grown is for research conducted by an institute of higher education or a state department of agriculture. The 2018 bill, however, identified hemp as an agricultural plant, not a controlled substance.

What is Hemp?

Hemp is a cannabis plant grown for its flowers, seeds, fibers and stalks, as well as for biomass, where the entire plant is chopped up. It has been grown by humans for at least 12,000 years. In the past, it was used for fiber, food, paper, oil, textiles and rope, and it is one of the oldest domesticated plants.

Its decline in production coincided with a high federal tax imposed upon it in 1937, as well as with technological advances such as the invention of nylon, which was first used in 1935. Then, in 1970, Congress passed the Controlled Substances Act, which listed marijuana as a Schedule I substance, which also includes drugs such as heroin and LSD — meaning that it is considered to be among the most harmful of drugs. At the time, industrial hemp was not distinguished from marijuana.

As farmers prepare for the 2020 season, they do so with uncertainty. Yet, each

“Literally Betting the Farm”

season offers new opportunities.

Experience, of course, is the best teacher. So, I met with five West Virginia hemp farmers — Don Dransfield, Brian Wickline, Dirk McCormick, Sonya Fullen and Don Smith II. I also toured Wickline’s farm in Union.

Monroe County comprises 474 square miles in the Greenbrier Valley, providing farmers with some of the richest and most open farmland in the Mountain State. Yet, Dransfield says that growing hemp is “literally betting the farm.” That is because hemp farming is not only risky, but also quite expensive.

Wickline, for example, spent \$100,000 — \$20,000 per acre — planting and cultivating cuttings on 5 acres of his 700-acre farm. His costs are about average per acre, according to most other farmers I spoke with. Wickline’s first year growing hemp was 2019. He was attracted primarily by the potential in the CBD industry. He explains, “We were looking at it to offset a dying dairy industry.” However, he added, “The CBD wholesale market is at 20 percent of where it was when we started growing.”

For 2019’s crop, Wickline took out a loan. But because he has not been able to move the flowers from that harvest as expected, he paid only the interest this year so that he could grow during the 2020 season. He explains that such risk-taking has become business as usual in farming.

Sonya Fullen grew up on a farm in Greenville, in the center of the county. Her husband is a sixth generation farmer, and her father was a well-known agronomist in the region. They grow outdoors for CBD, using both cuttings and clones. Their overhead was close to \$20,000, yet two-thirds of their crops had to be destroyed because they exceeded the 0.3 percent THC threshold. What was left had limited value, because it

was low in CBD. They financed their operation with a loan. Still, Fullen isn’t giving in. She recently visited a veterinarian conference in Asheville, N.C., to explore the possibility of using CBD extract as medicine for animals. Dirk McCormick started growing hemp because of personal experience and



prodding from his daughter. He says he bought his first bottle of CBD oil for \$79. It lasted 45 days. “It helped with pain,” he says. He adds, “We took a huge risk to make a profit because nothing else is selling.”

The other problems West Virginia farmers faced in staying under the THC ceiling had to do with the state’s testing methods and timing. Regulators would test

a few samples from a field in late summer, cutting off the top 6 inches of the plant to assess it. Farmers argue that biomass should be tested, as that would give a more accurate reading of the whole plant. Additionally, they note, the longer the plant is in the ground, the more CBD — and THC — is going to be present. From the testing date, farmers have only a couple of weeks

Hemp by the Numbers

Hemp acreage licensed in 2019

KY	60,119
NC	15,090
TN	40,000
VA	10,100
WV	2,734

Hemp grower licenses granted in 2019

KY	1,000
NC	1,253
TN	3,200
VA	897
WV	167

Data courtesy of Vote Hemp



Kris Gupton, center, and his wife Heather Bryant have grown hemp in Western North Carolina for four years. A pending state bill poses new threats to N.C. growers, but Bryant and Gupton say they are committed to farming hemp. Photos courtesy of Heather Bryant and Kris Gupton.

to harvest the crop. It also means a later planting time so that the THC levels are not too high when the state tests the plants.

The CBD Market Explodes

Meanwhile, at the other end of the supply chain, the CBD market exploded following the 2014 and 2018 laws. Yet, while farmers are highly regulated, the same is not the case at the retail end.

The result was an Economics 101 lesson in supply and demand. Most farmers in the region grew floral hemp for the cannabidiol, or CBD, industry. CBD and THC are both present in hemp and marijuana.

THC has psychoactive effects, or what is commonly known as being high. A marijuana plant can have THC levels as high as 20 percent or more. Legal CBD, meanwhile, must be under 0.3 percent THC, so it does not get a person high; it is used to treat pain, including osteoarthritis, rheumatoid arthritis and inflammation.

CBD is also an FDA-approved treatment for epilepsy and showed no indication of physical dependence in trials.

So for farmers struggling to stay afloat, the passage of the 2018 Farm Bill paved the way for those who had been part of the initial trial and those willing to jump in for the first time to grow hemp for CBD. However, by harvest time, farmers throughout Appalachia discovered the CBD market flooded.

Barbara Volk, president of the West Virginia Herb Association, says, “Hemp farming is like the wild West.” She adds, “It’s confusing for consumers. There are lots of things on the store shelf that are not pure CBD products. If you go into a convenience store, if you’ll read the ingredients, it’s not pure.” Yet, she’s hopeful. “I believe the market is open to good products.”

Heather Bryant and her husband Kris Gupton are entering their fourth year of farming hemp near Collettsville, N.C. She is concerned about the USDA guidelines.

“Out of three years of farming and

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Hemp Finds a Home

A hempcrete house high in the mountains of West Virginia demonstrates that industrial hemp is a viable alternative for homebuilders



By Michael M. Barrick

One of America’s greatest writers, Pearl S. Buck, was born here in Hillsboro, W.Va., in 1892. Though she grew up in China as the daughter of missionaries, her novel, “The Good Earth,” which gained her worldwide fame in the 1930s, seemed to spring out of the very mountains in which she was born.

It seems appropriate then that one of the first houses in West Virginia constructed with hempcrete was built here by Seven Rivers Design+Build, a local company owned by Andrew Must. Hempcrete comes from the hemp plant, which has been used for thousands of years by humans for numerous purposes and is one of the world’s oldest domesticated plants.

His parents, Bob and Ginger Must, agreed to be “guinea pigs,” as Ginger put it, for Andrew’s first attempt at a hempcrete house. Ginger designed it.

“We were going to downsize anyway,” she says. “Andrew had been talking about hempcrete. We thought it would be a model. We want to promote West Virginia hemp.”

While Andrew is looking forward to the day he can use hemp grown in West Virginia, he shares, “The hemp was grown and processed in Kentucky, and we hauled it to West Virginia. So it is sourced regionally.”

According to Andrew, hempcrete is essentially bonded cellulose insulation. It is a composite of bio-fiber and a mineral binder with three main ingredients: hemp hurd, lime binder and water. The lime undergoes a chemical set when moistened, binding the hurd particles together.

I visited the three of them at the home in late January, less than three months after the couple had moved into it. Bob is a retired physician; he practiced in Hillsboro. Ginger worked in Hillsboro for the Pocahontas County library system before retiring. They have owned the land in one of the state’s most scenic counties for 13 years. The 1,750 square-foot house took two-and-a-half years to build.

While the project was frustrating at times because it was a new experience, in hindsight, sitting in their bright and spacious great room, it was clear the Musts were

pleased with the risk they took. When I visited, it was about 28 degrees outside. Snow-capped ridges could be seen out the window. The thermostat inside was set at 66. The actual temperature in the house on a cloudy day was 70. Energy efficiency is just one benefit of hempcrete.

The material is used mainly as wall, slab and roof insulation. The air space between the hemp hurd particles creates its insulative properties up to R2.5 per inch. While that is lower than traditional fiberglass insulation, the properties of the hemp make it easier for the contractor to manipulate.

Andrew adds, “The ecological footprint of hempcrete is so much smaller. It’s carbon-negative, and unlike other building products used to build walls, hemp is not nearly as temperature sensitive.” Hence, less insulative properties are required.

Notably, the walls are plaster, not drywall. Drywall is just one of the many typical products that go into modern homes that need not be used in a hempcrete

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Hemp

Continued from centerspread

18 different hemp strains, only three of those have a total THC below that threshold,"Bryant wrote in an email. "Additionally, those three strains have below 10 percent CBD content, as the two are proportional to each other, i.e. low total THC equals low total CBD."

Growers aim for somewhere between 4 to 16 percent CBD, and 10 percent is considered average, growers and retailers say. The higher the CBD level, the stronger the medicinal benefits. Bryant adds, "CBD is not really regulated at the retail level. However, we and many others have good manufacturing practices to ensure a properly labeled product. From what I've seen and heard, people shop with their eyes and go for an appealing label. What we are trying to do is sell our story along with our product. Consumers should definitely read the label of ingredients and maybe do some research on the company, if possible, as well as look for a sealed container."

Blake Butler with the North Carolina Industrial Hemp Association agrees. "Everyone's selling it. It's a craze. Growers went along with it. Here's the

catch: we don't have guidance from the [U.S.] Food and Drug Administration. How do we label it? Nobody taking CBD has been hurt that we know of. We know that the plant is valuable. It's here for a reason."

Speaking in confidence for business reasons, an operator of a CBD store in Western North Carolina expressed concern, saying, "I don't know which way the wind is blowing. I don't want to be caught holding inventory, but CBD products are popular." Indeed, CBD dog treats in their store were \$45 a gram. Two-ounce tincture bottles sold for \$60. Smokable hemp ranged in price from about \$5 to \$15 a gram.

The store operator stated that the high demand for CBD oil extractors since the 2018 bill's passage has led to the bottleneck in production due to an inadequate number of processors. Indeed, says Monroe County famer Brian Wickline, his most important priority for this season's crop is to contract with "a proven, successful extractor."

Expanding a "Wild West" Market

Bryant also says they're not about to give in. She emphasizes the value of locally grown products, goes to different farmers markets, events and festivals,

uses social media and has created an online store. She is also getting ready to open a store in downtown Lenoir, N.C., about 20 miles from their Caldwell County mountain home. The store will be dedicated to their hemp and its derivatives, in addition to many holistic herbs and alternative medicines.

Growers, though, still need to adjust their thinking, says Butler. "We are working to get people to buy from farmers who grow for fiber. Everyone's warming up to the idea. It's just going to take some time. Growing for fiber is a whole lot easier than growing for CBD, but you make a lot less money. So, we need to get our farmers to see the benefits of a three- to five-year plan."

Butler says that the "perfect scenario" would be if a clothing company like Patagonia would come in and take enough orders from local farmers. He observes, "That is a micro-economic example of how to bring a small town back to life."



In Monroe County, W.Va., farmer Brian Wickline stands by 10 pounds of hemp flower. He is pursuing hemp to help diversify his dairy farm. Photo by Michael M. Barrick.

Don Smith in Tornado, W.Va., isn't as hopeful. He works with Agri Carb Electric Corporation, a company that is looking for and developing markets for industrial hemp. He says the USDA guidelines are a huge barrier. Smith

Continued on next page

Hempcrete

Continued from centerspread

house. Additionally, the use of plaster as opposed to sheetrock improves hempcrete's insulative properties. "I did a lot of research on plaster," Ginger says. "It's impervious to insects. It won't get mold. There is no moisture in the walls."

All three added that one of the biggest challenges — because of the way hempcrete sets up — is making sure the contractor and home owners figure out where electrical outlets will be, where cabinets will be hung, where ductwork or other HVAC systems will be located, and all of the other logistical considerations that go with piecing together a home.

Andrew's parents chose to place the heating system in the floor. They also have a small wood stove and a wall of windows facing south. They do not have air conditioning. For the summer, a natural cooling system of trees on the north, west and east keeps them comfortable.

"So far, we're very happy," Bob shares. "Hemp is very breathable, so you have fresh air."

As with any construction project, the sequence of events needs to be precise. That is especially more so with a

hempcrete house. As with any home, grading and footers are completed first. They then build the walls. An advantage here, notes Andrew, is that he needs only use 2x4s instead of deeper studs. Larger studs, such as a 2x6, are used in standard building just to allow room for insulation; that isn't necessary with hempcrete.

Next, the placement of hempcrete begins. A form is built for the hempcrete. The hempcrete is then placed between the studs about two feet up. The process is labor intensive, as the hempcrete is packed tighter close to the studs. Keeping that balance uniform as one goes up the walls is difficult, so the Musts learned a few things during the process. From there, the interior walls are framed, the windows are set and the house is plastered.

While the house was built out of practicality — and a sense of adventure to experiment — Ginger says, "It has an old world quality in the way it looks and feels. It feels good. The right light and humidity. It's like going to chapel."

So, while hemp farmers and others in the supply chain struggle to find markets for their hemp products in these early stages of the industry, it would seem that hemp has found a home — in homes.

To learn more about why and

how hempcrete is used in building, contact Andrew at (304) 520-5076 or by email at andrew@sevenriversdesignbuild.com. ♦ © Michael M. Barrick



Hempcrete is used for construction and for insulation. Bob and Ginger Must's home in West Virginia, above, was built with hempcrete. At left, a hempcrete wall prior to plaster application. Photos by Michael M. Barrick

Pipelines

Continued from page 8

maintain pollution control measures as mandated," reads a Feb. 8 Wild Virginia press release. "This behavior prolongs a disgraceful pattern of noncompliance that has been ongoing since work began on the destructive project in early 2018."

Meanwhile, legal troubles continue to mount for Mountain Valley developers.

In January, three Virginia couples filed a lawsuit challenging FERC's use of eminent domain to seize their land for the pipeline. Attorneys for the landowners are calling on a federal judge to nullify FERC's ability to grant eminent domain certificates and declare that all certificates already issued are void.

"When it comes to eminent domain, FERC has far too much power and discretion," said Mia Yugo, one of the landowners' attorneys, in a Jan. 3 press release.

Protests

A tree-sit in the path of the Mountain Valley Pipeline reached its 500th day on Jan. 17. The blockade in Elliston, Va., was ongoing as of press time in mid-February.

On Jan. 30, a judge dismissed misdemeanor charges against Phillip Flagg, who chained himself to Mountain Valley construction equipment in July 2019 in Montgomery County, Va. Flagg previously spent several months in the trees at Elliston. Glenna Benjamin, a 76-year-old protester who blocked construction near the area in September, was found guilty of trespassing on Jan. 13.

Multiple states have enacted or are considering bills that discourage pipeline protests. On Feb. 10, the Kentucky House passed a bill that would make

inhibiting operations of infrastructure including pipelines a felony punishable by up to five years in prison and a maximum \$10,000 fine. H.B. 44 awaited decision in the state Senate as of press time.

In Ohio, S.B. 33 would make tampering with natural gas infrastructure a felony. Critics worry this could include temporary changes such as graffiti. The state Senate passed the bill in May 2019, and it awaited decision in a House committee at press time.

A bill moving through the West Virginia legislature would make impeding work on "critical infrastructure" such as pipeline construction a felony. H.B. 4615 currently awaits decision in the state House.

If convicted, those who engage in this common protest tactic would face a minimum fine of \$1,000 and one to three years in prison. Additionally, any person or organization who conspires in this would face a minimum fine of \$10,000. Trespassers who do not stall construction would face misdemeanor charges including a minimum fine of \$500 and imprisonment ranging from 30 days to one year. Anyone who conspires with trespassers would face a fine of \$5,000. The bill does not include a maximum limit for fines.

Maury Johnson with the grassroots nonprofit Protect Our Water, Heritage, Rights coalition was one of 23 West Virginians who spoke out against H.B. 4615 at a public hearing on Feb. 10.

"They did this hearing at 8:30 on a Monday morning when they knew that very few people would get there," says Johnson, who drove several hours to attend.

"It's another industry giveaway to advance pipelines as quickly as possible without any resistance," he continues. "They're gonna need a whole lot more jails." ♦

Farmers Across Appalachia Are Affected

All states in Central and Southern Appalachia have legalized industrial hemp. Yet, as the 2020 growing season approaches, the new USDA rules concern the region's farmers.

Blake Butler of the North Carolina Industrial Hemp Association notes that the state's program has evolved from one that emphasized research as required by the 2014 Farm Bill into a state pilot program that has approved applications for 1,300 growers and 700 processors. Indeed in 2015, the N.C. General Assembly established the Industrial Hemp Commission to stay within federal laws, and the state continues to accept applications for its Industrial Hemp Pilot Program.

Additionally, the 2019 North Carolina Farm Act is in legislative limbo over issues unrelated to industrial hemp, such as hog waste disposal and legislative stalemates. Yet, industrial hemp provisions are in the bill, including a ban on smokable hemp. Butler admits, "I have no idea what the legislature is going to do." However, the legislature is not scheduled to convene until April 28. Butler is hopeful farmers would have six months to adapt to any law changes.

Yet, the North Carolina Industrial Hemp Association — as well as farmers like Heather Bryant — are promising an aggressive fight against any legislation that would harm their fledgling industry, including the more conservative definition of THC and the criminalization of smokable hemp.

"We and many others are prepared for the class action lawsuit," Bryant explains. "While [passage of the state bill] will hinder us with in-state sales, it does not restrict us from selling our crop out-of-state. North Carolinians will also still be able to purchase hemp online, as the federal government has made clear the interstate commerce cannot be stopped. It can be shipped via USPS. We will be able to boost other state's economies with the sale of hemp, but North Carolina will get nothing from it."

Indeed, the North Carolina Industrial Hemp Commission has issued a resolution in opposition to the proposed prohibition.

2020 is the final year of Kentucky's research pilot program for hemp before the state transitions to a commercial program. In early February, the state legislature sent the governor a hemp bill that would

loosen some restrictions, such as allowing more laboratories to test for THC. But the state's industry is seeing setbacks, too; on Feb. 6, the state's leading hemp company filed for Chapter 11 bankruptcy.

The Tennessee Department of Agriculture announced changes to the state's hemp program last June. As a result, the industry has grown dramatically. The agency's website notes that it "has licensed more than 2,900 hemp growers in 2019. In 2018, TDA approved 226 hemp producer applications." By Nov. 1, 2019, the state had licensed 3,800 hemp farmers, according to Commercial Appeal.

In March 2019, Virginia legalized commercial hemp growing and processing, and in the fall, Gov. Ralph Northam announced the commonwealth's first industrial hemp processing facility would be in Wythe County. The company will process bales of hemp stalks, and, according to the governor's press release, "will sell bast fiber to a North Carolina company for further processing and sale to the textile industry, while the woody core of the plant, or hurd, will be sold to a Virginia company for use as animal bedding." ♦

The Impacts of Coal Bankruptcies

By Kevin Ridder

The year had scarcely begun when Eastern Kentucky coal miners once again stood in the way of a train full of coal to demand pay for weeks of work. About a dozen current and former American Resources miners took to the tracks on Jan. 13 in Pike County, Ky., and stated that they had not been paid since Dec. 27, according to the Lexington Herald-Leader.

This came not even six months after a worker-led protest in Harlan County, Ky., against Revelation Energy and its affiliate Blackjewel, LLC, for unpaid wages in 2019. The companies clawed back paychecks after declaring bankruptcy in early July, leaving many of their roughly 1,700 employees with overdrawn bank accounts.

In October, Blackjewel agreed to pay the miners the \$5.1 million they were owed after months of squabbling in bankruptcy court. In American Resources' case, the company paid all wages owed after two days and the state closed four of the company's mines in late January for failing to have workers' compensation coverage and not paying all employees.

This turmoil is yet another sign of the industry's struggles. Eight coal companies declared bankruptcy in 2019, including Murray Energy, the nation's largest privately held coal company at the time of its bankruptcy. This marks 11 coal bankruptcies since President Donald Trump took office in 2017 with the promise of reinvigorating the declining industry — and 2020 looks worse for coal companies, according to the U.S. Energy Information Administration.

Coal production declined by an estimated 9 percent throughout 2019, and the EIA projects that it will fall by 14 percent in 2020 and an additional 3 percent in

2021 due to decreasing demand domestically and abroad. The closure of coal-fired plants and competition from natural gas and renewable sources are expected to lead to an 11 percent drop in national coal consumption this year, making United States coal consumption the lowest since the early 1970s. As coal declines, the possibility for future coal bankruptcies rises — and what happens to the mined land left behind?

When Congress passed surface mining regulations in 1977, federal and state rules included bonding requirements to ensure that mines would no longer be abandoned without sufficient cleanup funds. Ever since, mine operators have been required to post bond money upon opening a new mine to ensure that regulatory authorities can reclaim the land if the operator is unable to, typically due to bankruptcy. The 1977 law requires companies to reclaim the land in order to get their bonds back, which happens in phases as reclamation proceeds and inspectors sign off on the results.

Now that the coal industry is in its twilight years, a few companies have been unable to fulfill their reclamation obligations. If this continues, Kentucky and Virginia are among those that could face massive cleanup costs that outweigh the millions of dollars set aside for reclamation.

Blackjewel Debacle

Revelation Energy and Blackjewel hold \$164 million in reclamation bonds in Kentucky. This is according to a Jan. 13 letter from the state Energy and Environment Cabinet to the federal court sorting out the companies' 2019 bankruptcies. But Kentucky's bond amounts are not always



At top, a valley fill near the Rush Creek coal mine in Kanawha County, W.Va. This is one of 60 mines that bankrupt Revelation Energy and its affiliate Blackjewel had not sold as of Feb. 5. Unfinished reclamation at the mine has led to extensive water pollution in nearby waterways. Photos courtesy of Kanawha Forest Coalition

high enough to cover the real cost of repairing damage to land and water. When the state agency analyzed the cleanup costs for only 20 percent of Blackjewel's mines in Kentucky, it found that reclamation would cost at least \$202 million — a \$38 million shortfall that does not include the majority of the company's mines.

As of February, Kentucky had a \$51.1 million bond pool, which contains contributions from multiple companies to cover reclamation costs if a company goes bankrupt or otherwise cannot pay. If Blackjewel forfeits the bonds on even a portion of its 213 Kentucky permits, the bond pool could be drained and taxpayers could very well be left with the cleanup bill. According to a Blackjewel letter to the bankruptcy court on Feb. 5, the company had yet to find a buyer for 52 permits in Kentucky, five in Virginia and three in West Virginia.

While 161 other Blackjewel permits in Kentucky have buyers as of Feb. 5, state regulators told the court in a letter that they had only received six permit transfer applications. Additionally, the Energy and Environment Cabinet stated in its letter that Blackjewel had failed to pay any fees into Kentucky's bond pool for any of its permits, and that those fees must be paid in full before any permits can be transferred.

Blackjewel stated in a December letter

to the court that the reclamation costs of any unsold permits would be left to the third-party surety companies that insured them. In practice, this means that the surety companies will determine whether it is more cost-effective to hire out the reclamation work themselves with the bond funds or release the bonds to the state.

The bankrupt company's environmental problems continue. When Blackjewel declared bankruptcy in July, it already had 121 environmental violations in Kentucky alone. While it had resolved 12 of those by mid-January, Kentucky regulators stated that Blackjewel had racked up 280 new violations in the state since declaring bankruptcy, according to a Jan. 13 letter from the Kentucky agency to the court.

The company's attorneys have claimed that Blackjewel does not have the financial resources to address these violations. But the state found that the company has approximately \$19.9 million in liquid assets and stated that those funds should go toward environmental cleanup.

At a Jan. 15 bankruptcy hearing, Mary Cromer with the nonprofit Appalachian Citizens' Law Center spoke on behalf of several community groups including Appalachian Voices, the publisher of this newspaper.

Continued on next page

Support Grows for Mine Reclamation Bill

By Kevin Ridder

As of mid-February, seven Southwest Virginia localities passed resolutions calling on the state's federal representatives to support reauthorization of a funding program for reclamation of abandoned coal mines. In Pennsylvania, 20 counties and four municipalities have passed similar resolutions, and related efforts are underway in other Appalachian states.

Since 1977, coal companies have paid a fee on each ton of coal mined to the U.S. Office of Surface Mining Reclamation and Enforcement, which funds the Abandoned Mine Land program. Through this program, the government distributes funds to states and tribes to reclaim coal mines that were abandoned prior to the 1977 federal surface mining law.

The AML program has paid for more than \$5.7 billion worth of projects nationwide, reclaiming nearly 800,000 acres of damaged land and waters. Despite this, an estimated \$10.6 billion in reclamation remains, and that estimate is likely low.

The fee funding the AML program is set to expire in September 2021 if Congress

does not reauthorize it. In January, a House committee passed H.R. 4248, which would extend the program by 15 years. The bill, which is supported by Appalachian Voices, the nonprofit organization that publishes this newspaper, currently awaits a decision in the House.

One of the many sites that has benefited from the AML program is the Dessecker Mine Project in Tuscarawas County, Ohio. The land, which is owned by the nonprofit Camp Tuscazoar Foundation and the Boy Scouts of America, faced several threats from historic mining including open mine portals and water polluted by acid mine drainage. After being awarded \$702,000 in AML funds, the state sealed the open portals, removed hundreds of tons of debris and more.

If the AML fund is not reauthorized before September 2021, more abandoned mine problems such as those at Squirrel Camp Branch in Dickenson County, Va., would go unaddressed. First reported to regulators in 1985, Squirrel Camp's estimated \$2.35 million in cleanup costs include removing a dangerous highwall

and closing open mine portals.

"Reauthorizing the Abandoned Mine Land fee would undoubtedly benefit Dickenson County," says Pierceton Hobbs of Clintwood, Va. "We have to support these efforts, or we'll continue to have polluted streams, dangerous highwall cliffs and a plethora of other problems."

To learn more, visit the website ReclaimingAppalachia.org/ reauthorization. ♦



A crew disassembles a tipple, top, at the Dessecker Mine site near New Philadelphia, Ohio, in 2017 for preservation. Photo by Mike Jedlicka/American Industrial Mining Co. Museum.

VA Initiates Bond Forfeiture on Justice-Owned Mines

On Jan. 27, Virginia regulators issued two notices of bond forfeiture on coal mining permits held by companies owned by West Virginia Gov. Jim Justice's immediate family. Federal law requires coal companies to post bonds for mining permits, in order to fund reclamation if the company fails to do so. Bond forfeiture is the most severe enforcement action available to regulators.

Virginia initiated forfeiture on a mine in Tazewell County for Black River Coal's chronic environmental and public safety violations and its failure to pay penalties.

An A&G Coal Corp. mine in Wise County faces forfeiture after the company did not pay administrative fees and civil penalties. This permit is self-bonded, meaning no actual collateral is available to the state.

It was unclear at press time how the Justice family will respond to these actions. In the past, state regulators have opted to enter into lenient compliance agreements with Justice companies, rather than finalize bond seizure and permit revocation.

For updates, visit the Appalachian Voices blog at AppVoices.org/blog. —By Willie Dodson

Coal Bankruptcies

Continued from previous page

"As these mine sites are sitting, their conditions are degrading, the failure to maintain them is ultimately increasing the cost of reclamation. And that increased cost of reclamation, for the mines that are going to be abandoned, is going to fall on the citizens that we represent," said Cromer.

Complicating the case, former Blackjewel CEO Jeff Hoops claims that the company owes him nearly \$30 million — but Blackjewel attorneys asserted that Hoops fraudulently transferred tens of millions of dollars to his personal accounts prior to the bankruptcy. In 2019 alone, Hoops and one of his other companies allegedly took more than \$41 million, according to Blackjewel attorneys.

Former employees are still dealing with the fallout of Blackjewel's mismanagement. The company and its affiliates stopped making timely payments toward their employee health insurance plan after declaring bankruptcy. This means that health care providers are seeking payment for healthcare costs that employees incurred between early July and the plan's cancellation on Aug. 31.

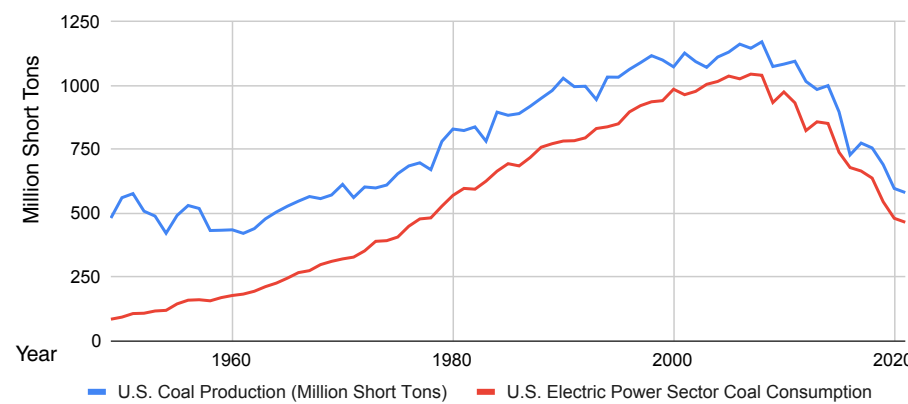
As of Dec. 11, there were more than \$9.5 million in unpaid claims filed by medical providers of the former employees. As a result, the miners could be on the hook for thousands of dollars in medical bills.

On Jan. 21, Blackjewel lawyers asked the court to stop individual healthcare providers from taking debt collection measures for four months. The dispute between Blackjewel and UnitedHealthcare remained unresolved as of press time in mid-February.

The mess left behind after a coal company declares bankruptcy is far-reaching in terms of both the effects on the land and on the people. While these situations can vary, they are unfortunately becoming more common.

"More companies are going to go bankrupt, and more permits will get forfeited," says Appalachian Voices' Central Appalachian Senior Program Manager Erin Savage. "In the past, most bankruptcies have been reorganizations, where companies sold off permits to other companies. Since coal is dropping even more in 2020, reorganizing and selling failing mine permits to other companies is not a viable strategy anymore." ♦

U.S. Estimated Coal Production and Consumption, 1949-2021



Data from U.S. Energy Information Administration

A Just Transition for Coal Communities

Stakeholders from across the country are collaborating on a path to a better economy for coal-impacted regions

By Kevin Ridder

For decades, the coal industry has gone through cycles of boom and bust. When, on top of other factors, the price of natural gas plummeted in the early 2010s, communities that had long depended on coal were hard hit by the massive job losses that followed. Out of the 91,611 national coal jobs in 2011, only 53,583 remained in 2018, according to the U.S. Energy Information Administration.

While Appalachia was heavily impacted by these job losses, workers and families in places like the Midwest and the Navajo Nation are also bearing the brunt of the coal industry's decline. This has contributed to challenges such as poverty and decaying infrastructure. To address these and other problems, community leaders across the country are devising ways to foster economic opportunity.

In Preston County and Whitesville, W.Va., officials and local nonprofit organizations are utilizing federal funds to transform old railroad tracks into recreational trails. Outside of Page, Ariz., Native American entrepreneurs are working to electrify thousands of homes on Navajo and Hopi land using solar energy. There are many more examples of what economic transition can look like; job retraining, employment services, investment in education, and stimulating entrepreneurship are just a few.

To support efforts like these, the Just Transition Fund convened advocates to call for a national community transition program to promote economic development in coal-impacted regions. The nonprofit organization and grantmaker is dedicated to helping communities with historically coal-based economies. Appalachian Voices, the nonprofit organization that publishes this newspaper, is one of the groups involved and is a grantee of the fund.

"From our perspective, this problem is so big it needs a response at every level, including a federal response that's informed by the powerful work happening on-the-ground in coal com-

munities all over the country," says Just Transition Fund Co-founder and Executive Director Heidi Binko. "We need state action, local action, and we need the private sector to scale."

Specifically, the groups involved are developing a platform that advocates for a "just transition" — meaning solutions that move away from an extractive economy and toward one that is socially and environmentally sustainable. Since early 2019, the organizations have been developing a platform outlining federal strategies that would provide immediate and long-term support to workers and communities. Project planners anticipate releasing the platform in late winter.

"The Just Transition Fund collaborates closely with these partners. We work across the country to find, fund and scale innovative policies and programs, so we've developed a good perspective on who's leading," says Binko. "Together as partners, we're identifying the best solutions to draw a roadmap that national decision makers can follow if they want to effectively tackle this problem."

One of these groups is the BlueGreen Alliance, a nonprofit organization that works with labor unions and environmental interests to advance a stronger, greener economy. "We believe very strongly that the country lacks a decent support system for people that have been on the hurting end of changes in our economy," says BlueGreen Alliance Executive Director Jason Walsh. "And so our solutions can't just rely on what's already there. We actually need to approach this challenge much more ambitiously, and we've got to bring new tools to that project."

Stating that there is no single "silver bullet" approach, the platform is instead expected to suggest a multitude of ways the federal government can contribute toward a sustainable, inclusive economic transition for coal communities. These include supporting local leaders, mine reclamation, long-term economic diversification, infrastructure improvement and more.



At a planning meeting, Tó Nizhóní Ání Executive Director Nicole Horseherder, at right, speaks with Just Transition Fund Executive Director Heidi Binko and Western Organization Resource Councils Executive Director John Smillie. Photo by Christine Gyovai

The Eastern Kentucky-based Mountain Association for Community and Economic Development, or MACED, is another of the nonprofit organizations involved in developing the platform.

"We recognize that this overall just transition is never going to be solved by any one approach or any one organization," says MACED President Peter Hille. "We see our work as being importantly integrated with a bunch of different organizations, not because we're all doing the same thing, but because we're all doing different things that are connected in really important ways."

Planning Process

In early 2019, the Just Transition Fund began reaching out to its grantees and other partners across the country.

"We asked, 'What could we achieve if we bring communities together to advocate for what they know will work and what they need at the federal level?'" says Binko. "We realized pretty quickly there was something to this idea."

After leading development of a draft platform for several months, the Just Transition Fund convened approximately 40 local leaders from around the country in the nation's capital in June 2019. The groups' members then took to the field to seek further local input. This led to a series of regional meetings as well as extensive communications with community heads to ensure that

the final product was as informed as possible.

"If folks in the White House or on Capitol Hill are going to serve Appalachian coal communities, they need to know which policies to pursue," says Appalachian Voices' Senior Legislative Representative Thom Kay. "They need to know what is working, and what is still needed. I'm hopeful that the platform helps provide decision-makers with concrete policy ideas. But more than that, I hope it reminds them that people in coal communities need to be involved in big-picture discussions about their future."

Binko states that now is the time to address economic shifts on a national level, and that the platform plays an important role in elevating the voices of those most affected by the decline of the coal industry.

"All of us together are thinking comprehensively on what these coal communities need, on everything from economic development strategies to workforce programs to infrastructure needs," says Binko.

Defining the Future

Employment in the coal industry has been falling for decades, especially in Appalachia.

"We're really looking at a 70-year decline in the industry, which took [Kentucky] from 75,000 coal jobs in 1949

Continued on next page

Just Transition

Continued from previous page

to about 20,000 jobs in 2012," says Hille.

Hille states that the sudden coal job losses at the start of the decade are "a tragedy that sits on top of a disaster," with the disaster being the ongoing economic distress of communities that relied on the coal industry.

"Now those were good-paying jobs, they were some of the best-paying jobs in the region," says Hille. "But there were fewer of them every year, so it was doing less to contribute to the overall economy."

The BlueGreen Alliance's Jason Walsh states that federal unemployment safeguards are "wholly inadequate to the task" of supporting people in deindustrialized areas.

"The system was not set up to deal with thousands and thousands of dislocated coal miners," says Walsh.

In West Virginia, the coal industry's decline has led to a shrinking population. It is one of four states that has fewer people now than at the beginning of the decade, according to U.S. Census data.

"We hear so often from young people in West Virginia that they feel like they have to leave to be able to access economic opportunities, that too many young people feel like they can't be whatever they want to be in West Virginia," says Generation West Virginia Executive Director Natalie Roper. The nonprofit organization works to make the Mountain State an attractive place to live for young professionals and is part of the planning team for the National Economic Transition platform.

"It's important that we are diversifying the economy and prioritizing strategies to expand upon new and emerging sectors so that young people — and all people — feel like they have choices between careers, and that they're not feeling like they have to choose between a fulfilling career and life or staying in their home communities," Roper adds.

Groups involved in creating the platform have emphasized the need for workforce development and training programs for communities affected by coal closures. These programs would ideally not just be for former coal miners, as a coal mine or plant shutting down can significantly affect other area businesses and the local tax base.

According to Roper, Generation West Virginia is particularly focused on workforce development.

"I think what's been important throughout our conversations about this platform has been the importance of local leadership," says Roper. "Ensuring that communities are a part of defining their own futures, defining which sectors and what new economies are important for them to be building up, and for that to be performed by and led by the communities themselves is so important."

Prioritizing Place

After an area is scoured for coal, the land left behind is often barren.

"We want to encourage more federal investment into projects and programs and efforts that are aligned with this just transition and recreating viable communities and livelihoods for people," says Hille.

Many of the groups involved agree that investing in these locations is key, through coal site remediation as well as support for community-led infrastructure development.

Many coal communities in Appalachia and the rest of the country contend with contaminated water or scarce water access.

Marie Gladue with the Black Mesa Water Coalition, a nonprofit tribal environmental organization that is involved in planning the platform, spoke on poor infrastructure in the Navajo Nation.

"Power lines were built over communities on Navajo land, taking electricity and water to cities across the Southwest, while thousands in the Navajo Nation remained with no electricity access or water," Gladue told the Navajo-Hopi Observer in November.

A National Problem

In November, the largest coal-fired power plant in the Western United States shut down after 46 years. Nearly all 750 employees of the Navajo Generating Station, located in the Navajo Nation near Page, Ariz., were Native Americans. Most of the workers were laid off save for a fraction who are staying on to complete land reclamation efforts.



Regional meetings were held across the country to include as many local voices as possible. Photo by Christine Gyovai

The Navajo Nation suffers from high unemployment, with an unemployment rate of 47 percent as of 2016, according to the tribal government. Federal data shows a rate of 4.8 percent for the United States at the time. The Navajo Generating Station's deactivation, combined with the closure of Peabody Energy's nearby Kayenta Mine that supplied the station, is a massive financial blow to the Navajo and Hopi tribes.

More than 80 percent of the Hopi Tribe's income, approximately \$12 million, was coal-related. The Hopi are considering options such as mineral and land development and tribal gaming. Navajo Nation leaders told the Arizona Republic that the tribal government is taking an estimated loss of \$30 million to \$50 million in 2020, and that they will be utilizing government reserves to cover the shortfall and pursuing energy alternatives.

"We are looking to become the leader in renewable energy throughout the Southwest and Indian Country," Navajo Nation President Jonathan Nez told the Arizona Republic in November.

Nicole Horseherder is the executive director of Tó Nizhóní Ání, one of several nonprofit tribal environmental organizations on the platform's planning team. For a just transition, Horseherder states that the Navajo will need support from the governments and companies that profited from the tribe's natural resources for years.

"We're really under-represented and our situation is not as well-known, and so I think the platform is very important," says Horseherder. "It's going to help equalize transition sup-

port across all coal-impacted communities, and not just one area."

After attending some of the regional planning meetings, MACED President Peter Hille reflects on how some of the issues facing formerly coal-reliant communities in Appalachia relate to those in the Navajo Nation.

"What we've seen for decades in Appalachia is what we're seeing in real time in the closure just last year of the Kayenta Mine and the Navajo Generating Station," says Hille. "Outside of the immediate area where those mining jobs are, there's widespread

unemployment and difficult economic circumstances on those reservations."

"[Coal] jobs have provided good livelihoods for the people that have them, but it's a small number in a large region," he adds.

Horseherder states that working closely with other coal communities has provided valuable insight.

"A lot of the steps that we're just now taking, they've done it already years before us," says Horseherder. "Where they're at now is definitely a blueprint that we're looking at so that we know what's coming down the line for us. It's really helping us plan a little better."

Appalachian Voices' Thom Kay states that it was interesting to learn about coal-fired power plant closures from other regions of the country.

"In Appalachia, the focus is so often on miners," says Kay. "But many local economies have been dependent on coal plants and the relatively well-paying jobs they've provided. Nearby communities also dealt with decades of air and water pollution, and are often left with expensive environmental cleanup liabilities. The good news is that many of the economic solutions that can work for communities facing coal plant closures overlap with solutions in coal mining communities."

The National Economic Transition platform is expected to be released in late winter. For updates and links to the platform when it is available, visit this story online at appvoices.org/voice-national-transition. ♦

Clean Energy That Leaves No One Behind

A conversation with Appalachian Voices' Kate Boyle

The energy landscape is changing as clean power becomes competitive with fossil fuels. These changes are impacting residents and businesses across the region — but whether the benefits of clean energy are shared by all remains to be seen.



Renewable energy is better for the environment but, like all technology, it is not inherently fair or just. Creating an equitable energy system takes deliberate intervention by decision-makers and advocates.

To better understand the relationship between equity and clean energy, we sat down with Kate Boyle, deputy executive director of Appalachian Voices, the nonprofit advocacy organization that also publishes this newspaper.

What does “equity” mean when we are talking about renewable energy and energy efficiency?

Kate: It means no one is left out — everyone should be able to access the benefits of clean energy. But equity will not be achieved unless policies and programs are designed properly. We can look at solar energy, for example, and ask, “Why aren’t more low-income communities benefiting from solar?” The answer could be that programs in that community are only available to homeowners or because the only financing programs available require a lot of cash up front.

An equitable energy system also means that no group of people bears a disproportionate burden of the impacts of energy, such as health problems caused by air and water pollution. Communities that have borne the greatest impact should have the necessary resources to diminish or eliminate the harm being caused, as well as make investments in clean energy and other programs that will generate wealth, jobs and make their communities healthier and more prosperous moving forward.

Why do we need a focus on equity?

Kate: There is great disparity in the United States in how much families and individuals spend on their energy bills. When you compare energy bills to overall income, you get a person or household’s “energy burden.” All too often, low-income families have higher energy burdens than moderate and wealthy ones. By targeting programs to those with the highest energy burdens, we can begin to lessen the gap.

This is also a matter of racial justice. Studies of some cities have shown that even in the same income class there is a disparity in energy burden between African-American and White homes. This has to do with the long-lasting effects of segregation and urban planning, as well as deficiencies in federal requirements for the maintenance of affordable housing.

Energy efficiency programs play a really critical role in reducing energy burden. If you improve the efficiency of the home, you not only reduce energy bills, you increase the safety and comfort of the home as well.

What does clean energy look like without equity?

Kate: Unfortunately our current energy landscape has a lot of inequities. Much of the renewable energy in our region is owned and controlled by electric monopolies rather than by individual customers. While this is a result of our energy system being a centralized one, it also means that a lot of the economic benefit of those investments doesn’t reach the community. To make matters worse, electric monopolies have traditionally made even greater profits on renewable energy because they charge their customers a premium for clean energy resources.

A lot of this boils down to control. In a lot of places, customers can’t choose who they buy their energy from. This means they are limited in what energy they can buy and what price they will have to pay for it.

And even in places where customer-owned clean energy programs are present, if there isn’t intentional program design, they are often not acces-



sible to all people. For example, studies have shown that less than half of U.S. community solar projects have participation from low-income households.

What are some examples of just clean energy programs in Appalachia and beyond?

Kate: There are a lot of success stories when you look at energy efficiency. Appalachian Electric Cooperative in East Tennessee launched a program in 2019 that eliminates the upfront cost of making home efficiency upgrades. Instead, customers can apply for financing from the utility to pay for significant home energy efficiency improvements and appliance upgrades. Once the improvements are made, the customer repays the utility over time through an additional charge on their monthly electric bill. Ideally, savings on a customer’s power bill as a result of the improvements are greater than the annual repayment, providing a net savings to the resident even as they repay the cost of the home upgrades.

Appalachian Electric estimates that the homes involved will see their average electricity usage drop by about 7,000 kilowatt-hours per year. This program follows the “Pay As You Save” model of on-bill financing. This model can also work for renters, and it’s one that utilities across the region could adopt to help people save energy and money.

What about equitable solar programs?

Kate: To be equitable and accessible, solar programs must consider the needs of different populations and be structured in ways that overcome barriers to their

Members of Friends of Buckingham are challenging Dominion Energy’s plans to locate a fracked-gas compressor station in the historic African-American community of Union Hill. Read about their recent legal win on page 8. Photo by Lara Mack

participation. The most effective solar programs work alongside other services, like energy efficiency, help advance other community needs like workforce development and protect consumers from exploitation by predatory companies.

Washington, D.C., is running a solar program targeted to low- and moderate-income families that aims to save participants 50 percent on their electricity bill over 15 years. Participants’ household income must be below 80 percent of their area’s median income, and renters can also participate. Appalachian Voices has been advocating for a similar program that is under development in Virginia and will be overseen by the Clean Energy Advisory Board.

How should we go about bringing equitable clean energy to more people in our region?

Kate: Awareness is paramount. Increasingly, states are developing their own plans to reduce carbon, and addressing climate change is front and center on the national stage. It is critical that decision-makers understand the importance of equity when developing energy policy. We also need to ensure that individuals are aware of the programs available and have the means to consider the benefits of participating.

Process also matters. One of the fundamental premises of environmental

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Black Lung Healthcare Legislation Sees Progress

By Kevin Ridder

In December, the Black Lung Association, an organization comprised of coal miners afflicted with the disease and their supporters, marked a major victory. After two years of advocates’ lobbying, letter-writing and public demonstrations, Congress responded by temporarily reinstating an excise tax on coal companies that funds healthcare for miners with black lung and benefits for them and their dependents.

Black lung disease is a fatal, incurable condition caused by long-term exposure to coal and silica dust in and around coal mines. It is increasingly common and is affecting younger miners more than ever before.

Jimmy Moore, a retired coal miner and president of the Black Lung Association chapter in Whitesburg, Ky., was one of more than 150 coal miners and supporters who journeyed to Washington, D.C., in July 2019 to call for the tax to be restored.

“I think [the coal companies] are responsible for the miners that are getting black lung, and I think they ought to have to pay up,” says Moore.

In 2019, the tax on coal companies automatically decreased by half when legislators failed to extend it. The measure that passed in December only restores the tax for one year, meaning

it will again be halved in 2021 without congressional action.

In a report, nonpartisan budget watchdog Taxpayers for Common Sense called the early 2019 tax reduction “effectively another taxpayer subsidy for one of the most subsidized industries in history.”

Black Lung Association chapters across the region and regional groups such as Appalachian Voices, the nonprofit organization that publishes this newspaper, continue to call for a 10-year extension of the tax. Appalachian coal state Democrats have introduced legislation doing just that into both houses of Congress, but these proposals currently lack the Republican co-sponsors that will likely be necessary to pass the measure into law.

“Across the region, the miners have got to listen to each other and work together,” says Dean Vance, president of the Black Lung Association chapter in Vansant, Va. “If we can’t stick together and say what we want, we won’t get it. We’re for all the miners equally, and that’s what it’s about.”

The temporary tax extension was passed as part of the 2020 budget, which also included measures to secure pension benefits for 92,000 coal miners and healthcare benefits for 13,000 that were jeopardized by recent coal bankruptcies.

“When I started work, they told me



that I would have a pension whenever I retired, and that’s what I was working for,” says Moore. “I expected for them to keep their promise.”

The Black Lung Association is also supportive of an update to safety standards for silica dust, which can be more harmful than coal dust. A December 2019 study by the National Institute for Occupational Health and Safety found that 15 percent of samples from Central Appalachian surface mines exceeded the Occupational Health and Safety Administration’s exposure limit for silica dust. The U.S. Mine Safety and Health

Miners and their families hold a sit-in at the U.S. Senate office building in Washington, D.C., in July 2019. Photo by Earl Dotter/EarlDotter.com

Administration, which sets exposure limits for coal mining, has not updated its silica standard since 1985.

“Folks in D.C. don’t understand coal miners, and the job we do, and the dirt and the filth we deal with,” says Vance. “When they hear these stories about black lung, some people don’t want to believe it. But when we go meet them and show them the truth about what’s actually happening to us, we can get some of them on our side.” ♦

Clean Energy

Continued from previous page

justice is meaningful engagement — that decision-makers actively solicit a variety of perspectives, especially from communities that will be impacted by the proposed programs. It also requires making engagement accessible by making sure the time and date of meetings encourages participation, that childcare is provided and the like.

Similarly, the impacts of policies and programs need to be thoroughly analyzed to ensure they will result in the intended impact, or to create safeguards within programs to make sure that gains for some customers aren’t going to create new, unfair burdens for others.

What do policy-makers need to keep in mind when it comes to energy?

Kate: First, when energy policies result in

a transition from one fuel to another, the impact of that shift needs to be thought out. Many places have put plans into place to help the workforce transition, and to prepare for other economic impacts of a site closure, like decreased tax revenue that can affect public services.

Among the other questions that policy-makers should consider: If a coal or gas plant is going to be retired, how will the costs of that closure be handled? Will low-income people or others receive special consideration? If a community has borne more environmental pollution, what can be done to not only eliminate that pollution but also prioritize the benefits of new clean energy investments?

Where are we headed and how do we get there?

Kate: We are working toward a time where the benefits of the transition to clean energy are enjoyed by all, and where individuals and communities

have more power to determine decisions that impact them.

While there are examples of positive stand-alone measures, we have to address the structural inequities that exist if we are going to create transformational change. As long as states grant monopolies to utility companies, corporations will profit on the backs of ratepayers. We need an energy system

that is accountable to communities. This concept is often referred to as “energy democracy,” and it’s essential if we are going to bring about an equitable clean energy future.

To learn more about Appalachian Voices’ energy policy work, follow our blog at AppVoices.org/blog. ♦



Hemp

Continued from *centerspread*

18 different hemp strains, only three of those have a total THC below that threshold,"Bryant wrote in an email. "Additionally, those three strains have below 10 percent CBD content, as the two are proportional to each other, i.e. low total THC equals low total CBD."

Growers aim for somewhere between 4 to 16 percent CBD, and 10 percent is considered average, growers and retailers say. The higher the CBD level, the stronger the medicinal benefits. Bryant adds, "CBD is not really regulated at the retail level. However, we and many others have good manufacturing practices to ensure a properly labeled product. From what I've seen and heard, people shop with their eyes and go for an appealing label. What we are trying to do is sell our story along with our product. Consumers should definitely read the label of ingredients and maybe do some research on the company, if possible, as well as look for a sealed container."

Blake Butler with the North Carolina Industrial Hemp Association agrees. "Everyone's selling it. It's a craze. Growers went along with it. Here's the

catch: we don't have guidance from the [U.S.] Food and Drug Administration. How do we label it? Nobody taking CBD has been hurt that we know of. We know that the plant is valuable. It's here for a reason."

Speaking in confidence for business reasons, an operator of a CBD store in Western North Carolina expressed concern, saying, "I don't know which way the wind is blowing. I don't want to be caught holding inventory, but CBD products are popular." Indeed, CBD dog treats in their store were \$45 a gram. Two-ounce tincture bottles sold for \$60. Smokable hemp ranged in price from about \$5 to \$15 a gram.

The store operator stated that the high demand for CBD oil extractors since the 2018 bill's passage has led to the bottleneck in production due to an inadequate number of processors. Indeed, says Monroe County famer Brian Wickline, his most important priority for this season's crop is to contract with "a proven, successful extractor."

Expanding a "Wild West" Market

Bryant also says they're not about to give in. She emphasizes the value of locally grown products, goes to different farmers markets, events and festivals,

uses social media and has created an online store. She is also getting ready to open a store in downtown Lenoir, N.C., about 20 miles from their Caldwell County mountain home. The store will be dedicated to their hemp and its derivatives, in addition to many holistic herbs and alternative medicines.

Growers, though, still need to adjust their thinking, says Butler. "We are working to get people to buy from farmers who grow for fiber. Everyone's warming up to the idea. It's just going to take some time. Growing for fiber is a whole lot easier than growing for CBD, but you make a lot less money. So, we need to get our farmers to see the benefits of a three- to five-year plan."

Butler says that the "perfect scenario" would be if a clothing company like Patagonia would come in and take enough orders from local farmers. He observes, "That is a micro-economic example of how to bring a small town back to life."



In Monroe County, W.Va., farmer Brian Wickline stands by 10 pounds of hemp flower. He is pursuing hemp to help diversify his dairy farm. Photo by Michael M. Barrick.

Don Smith in Tornado, W.Va., isn't as hopeful. He works with Agri Carb Electric Corporation, a company that is looking for and developing markets for industrial hemp. He says the USDA guidelines are a huge barrier. Smith

Continued on next page

Hempcrete

Continued from *centerspread*

house. Additionally, the use of plaster as opposed to sheetrock improves hempcrete's insulative properties. "I did a lot of research on plaster," Ginger says. "It's impervious to insects. It won't get mold. There is no moisture in the walls."

All three added that one of the biggest challenges — because of the way hempcrete sets up — is making sure the contractor and home owners figure out where electrical outlets will be, where cabinets will be hung, where ductwork or other HVAC systems will be located, and all of the other logistical considerations that go with piecing together a home.

Andrew's parents chose to place the heating system in the floor. They also have a small wood stove and a wall of windows facing south. They do not have air conditioning. For the summer, a natural cooling system of trees on the north, west and east keeps them comfortable.

"So far, we're very happy," Bob shares. "Hemp is very breathable, so you have fresh air."

As with any construction project, the sequence of events needs to be precise. That is especially more so with a

hempcrete house. As with any home, grading and footers are completed first. They then build the walls. An advantage here, notes Andrew, is that he needs only use 2x4s instead of deeper studs. Larger studs, such as a 2x6, are used in standard building just to allow room for insulation; that isn't necessary with hempcrete.

Next, the placement of hempcrete begins. A form is built for the hempcrete. The hempcrete is then placed between the studs about two feet up. The process is labor intensive, as the hempcrete is packed tighter close to the studs. Keeping that balance uniform as one goes up the walls is difficult, so the Musts learned a few things during the process. From there, the interior walls are framed, the windows are set and the house is plastered.

While the house was built out of practicality — and a sense of adventure to experiment — Ginger says, "It has an old world quality in the way it looks and feels. It feels good. The right light and humidity. It's like going to chapel."

So, while hemp farmers and others in the supply chain struggle to find markets for their hemp products in these early stages of the industry, it would seem that hemp has found a home — in homes.

To learn more about why and

how hempcrete is used in building, contact Andrew at (304) 520-5076 or by email at andrew@sevenriversdesignbuild.com. ♦ © Michael M. Barrick



Hempcrete is used for construction and for insulation. Bob and Ginger Must's home in West Virginia, above, was built with hempcrete. At left, a hempcrete wall prior to plaster application. Photos by Michael M. Barrick

Pipelines

Continued from page 8

maintain pollution control measures as mandated," reads a Feb. 8 Wild Virginia press release. "This behavior prolongs a disgraceful pattern of noncompliance that has been ongoing since work began on the destructive project in early 2018."

Meanwhile, legal troubles continue to mount for Mountain Valley developers.

In January, three Virginia couples filed a lawsuit challenging FERC's use of eminent domain to seize their land for the pipeline. Attorneys for the landowners are calling on a federal judge to nullify FERC's ability to grant eminent domain certificates and declare that all certificates already issued are void.

"When it comes to eminent domain, FERC has far too much power and discretion," said Mia Yugo, one of the landowners' attorneys, in a Jan. 3 press release.

Protests

A tree-sit in the path of the Mountain Valley Pipeline reached its 500th day on Jan. 17. The blockade in Elliston, Va., was ongoing as of press time in mid-February.

On Jan. 30, a judge dismissed misdemeanor charges against Phillip Flagg, who chained himself to Mountain Valley construction equipment in July 2019 in Montgomery County, Va. Flagg previously spent several months in the trees at Elliston. Glenna Benjamin, a 76-year-old protester who blocked construction near the area in September, was found guilty of trespassing on Jan. 13.

Multiple states have enacted or are considering bills that discourage pipeline protests. On Feb. 10, the Kentucky House passed a bill that would make

inhibiting operations of infrastructure including pipelines a felony punishable by up to five years in prison and a maximum \$10,000 fine. H.B. 44 awaited decision in the state Senate as of press time.

In Ohio, S.B. 33 would make tampering with natural gas infrastructure a felony. Critics worry this could include temporary changes such as graffiti. The state Senate passed the bill in May 2019, and it awaited decision in a House committee at press time.

A bill moving through the West Virginia legislature would make impeding work on "critical infrastructure" such as pipeline construction a felony. H.B. 4615 currently awaits decision in the state House.

If convicted, those who engage in this common protest tactic would face a minimum fine of \$1,000 and one to three years in prison. Additionally, any person or organization who conspires in this would face a minimum fine of \$10,000. Trespassers who do not stall construction would face misdemeanor charges including a minimum fine of \$500 and imprisonment ranging from 30 days to one year. Anyone who conspires with trespassers would face a fine of \$5,000. The bill does not include a maximum limit for fines.

Maury Johnson with the grassroots nonprofit Protect Our Water, Heritage, Rights coalition was one of 23 West Virginians who spoke out against H.B. 4615 at a public hearing on Feb. 10.

"They did this hearing at 8:30 on a Monday morning when they knew that very few people would get there," says Johnson, who drove several hours to attend.

"It's another industry giveaway to advance pipelines as quickly as possible without any resistance," he continues. "They're gonna need a whole lot more jails." ♦

Farmers Across Appalachia Are Affected

All states in Central and Southern Appalachia have legalized industrial hemp. Yet, as the 2020 growing season approaches, the new USDA rules concern the region's farmers.

Blake Butler of the North Carolina Industrial Hemp Association notes that the state's program has evolved from one that emphasized research as required by the 2014 Farm Bill into a state pilot program that has approved applications for 1,300 growers and 700 processors. Indeed in 2015, the N.C. General Assembly established the Industrial Hemp Commission to stay within federal laws, and the state continues to accept applications for its Industrial Hemp Pilot Program.

Additionally, the 2019 North Carolina Farm Act is in legislative limbo over issues unrelated to industrial hemp, such as hog waste disposal and legislative stalemates. Yet, industrial hemp provisions are in the bill, including a ban on smokable hemp. Butler admits, "I have no idea what the legislature is going to do." However, the legislature is not scheduled to convene until April 28. Butler is hopeful farmers would have six months to adapt to any law changes.

Yet, the North Carolina Industrial Hemp Association — as well as farmers like Heather Bryant — are promising an aggressive fight against any legislation that would harm their fledgling industry, including the more conservative definition of THC and the criminalization of smokable hemp.

"We and many others are prepared for the class action lawsuit," Bryant explains. "While [passage of the state bill] will hinder us with in-state sales, it does not restrict us from selling our crop out-of-state. North Carolinians will also still be able to purchase hemp online, as the federal government has made clear the interstate commerce cannot be stopped. It can be shipped via USPS. We will be able to boost other state's economies with the sale of hemp, but North Carolina will get nothing from it."

Indeed, the North Carolina Industrial Hemp Commission has issued a resolution in opposition to the proposed prohibition.

2020 is the final year of Kentucky's research pilot program for hemp before the state transitions to a commercial program. In early February, the state legislature sent the governor a hemp bill that would

loosen some restrictions, such as allowing more laboratories to test for THC. But the state's industry is seeing setbacks, too; on Feb. 6, the state's leading hemp company filed for Chapter 11 bankruptcy.

The Tennessee Department of Agriculture announced changes to the state's hemp program last June. As a result, the industry has grown dramatically. The agency's website notes that it "has licensed more than 2,900 hemp growers in 2019. In 2018, TDA approved 226 hemp producer applications." By Nov. 1, 2019, the state had licensed 3,800 hemp farmers, according to Commercial Appeal.

In March 2019, Virginia legalized commercial hemp growing and processing, and in the fall, Gov. Ralph Northam announced the commonwealth's first industrial hemp processing facility would be in Wythe County. The company will process bales of hemp stalks, and, according to the governor's press release, "will sell bast fiber to a North Carolina company for further processing and sale to the textile industry, while the woody core of the plant, or hurd, will be sold to a Virginia company for use as animal bedding." ♦



This Green House

Getting Started Gardening

Make 2020 a year of new growth

By Eliza Laubach

When the daffodils flower and the trees bud new leaves, the urge to grow seeps like a seasonal spring replenished anew. Planting a garden connects one to the life force emerging all around, and brings blessings of food and beauty as the year goes on. Gardens were once a staple of rural mountain life, but they are no longer as common and starting one for the first time can be intimidating.

But the benefits are many. Growing food builds local resilience as the climate changes, and brings fresh food directly into communities. Appalachia contains many food deserts, which the U.S. Department of Agriculture defines as low-income areas where a substantial number of residents have little to no access to a supermarket.

In Burkesville, Ky., Cumberland County Agricultural Extension Agent Chelsey Anderson knows this reality: the county has one grocery store with no organic food options, and the closest Wal-Mart is an hour away.

“A lot of kids these days are so far removed from where their food comes from,” says Anderson.

She started a 4-H program, a hands-on youth group, in 2016 to connect with the community. Around six kids now grow food in raised beds on the extension office grounds and run a seasonal vegetable stand at the county farmers market. Inspired by the program, three of the members have started gardening at home.

Feeling ready to do the same?



Turnips, above, are a hardy root vegetable that can be grown in the spring and fall. Motherwort, a medicinal herb, blooms on a late May evening in the author's garden at left. Photos by Eliza Laubach

1. Make a garden plan

A garden plan will provide direction and increase chances of success. Thoughtfully consider your garden's location, so that it is integrated with other aspects of the homestead. Think about garden access, orientation to the sun, intention and future plans for the garden. The closer the garden to the house, the more it will be visited. Perennials can be planted farther away.

Some questions to consider for the plan:

- Where is the southern exposure on the property, which catches the longest hours of light?
- If you may implement future projects, think about ideal garden placement in relation to a rainwater catchment system or a pond.
- What will the garden look like? Think about the available space and soil type. Will you be transforming a lawn, building raised beds or container gardening?



- Is there space to pull in a truck or a wheelbarrow for transporting soil, compost or mulch?

- Is a fence necessary to deter deer, rabbits and other potential nibblers?



2. Pick out your favorite vegetables and flowers

Grow what you love, and feel the enjoyment of seeing it prosper. Order a seed catalog from a local or regional heirloom seed company, such as Sow True Seed in Asheville, N.C., and pick out what is most alluring. Kale and radishes are great to start with, as they are hardy and grow quickly!

These companies stock heirloom seeds that are grown in the region, which are already in tune with the Appalachian climate. Heirloom vegetables have more nutrients and are better adapted to pests and diseases.

Flowers attract insects that pollinate your garden, and certain blooms, such as marigolds and chrysanthemums, act as deterrents for pests. Companion planting is an established method of planting certain vegetables and flowers together for optimum growing potential and pest protection.

Find out the plant hardiness zone

and frost-free date for your region, and strategize accordingly. Seed catalogues are helpful guides. Make plans to start seeds or purchase vegetable starts, ideally from market farmers or local nurseries.

3. Connect with other gardeners and agricultural extension agents

Other gardeners will provide tips, community and helpful encouragement. Perhaps this is an opportunity to connect with your neighbor who has a flourishing garden, or join a club. Look up local social media gardening groups on Facebook or NextDoor. This is also a great way to get seeds directly from seed-savers!

Ask your extension agent if there is a seed library in your area, where gardeners can “check out” seeds grown by area seed-savers. Extension offices provide classes and educational material for gardeners and farmers. These are an invaluable, often free, resource with plentiful tips and tricks for home gardeners, and educational opportunities to scale up your garden

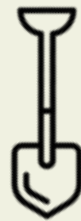
to a farm if it takes root.

4. Get tools and get dirty!

For eradicating lawn turf, a square shovel and hula hoe are the most helpful, and most labor-intensive. A broadfork or strong pitchfork is a great way to loosen soil without tilling. If a rototiller is your choice, disturb the soil as little as possible. Always cover bare soil with straw (not hay!) or leaf mulch to sustain the life of microbes that live in the soil. If Bermuda grass is present, be diligent about pulling it out, as it resprouts and spreads very easily.

Soil is alive with microbes, and scientists have found that these bacteria act similar to serotonin, a mood-boosting hormone. So get dirt under your fingernails and feel the joy of gardening!

Interested in learning more? Organic Growers School in Western North Carolina hosts a spring and fall conference with a diverse array of classes on farming. Visit the online version of this story at appvoices.org/thevoice for links to more resources.



High Stakes for Appalachia in the 2020 Census

By Dan Radmacher

Money and power.

Those are the stakes for residents of Appalachia as the U.S. Census Bureau conducts the 2020 decennial census — which will help determine how roughly \$1 trillion in federal funding is distributed over the next 10 years as well as which states lose congressional representatives and which gain them.

“The Census count guides federal funding for more than 300 programs,” says Kelly Allen, West Virginia Center on Budget and Policy's director of policy engagement. Those programs include school lunches, food stamps, children's health insurance, Head Start, Medicare, Medicaid and the Low-Income Energy Assistance Program, among other services such as roads.

Because the population across Appalachia has stagnated or declined, the 2020 Census will likely result in the loss of congressional representation. According to a study by Election Data Services, states that include portions of Appalachia are likely to lose representatives — including New York,

Pennsylvania, West Virginia, Alabama and Ohio.

These stakes make getting an accurate count vital for Appalachian residents and communities, according to Julie Zimmerman, professor of rural sociology at the University of Kentucky.

“The decennial Census is as close as we get to knowing for sure how many people are living in the U.S. and where,” Zimmerman says. “If this isn't accurate, it has a domino effect for so many other types of data, for funding, for the ability to make good decisions based on the actual data. In some ways, this is the most fundamental count. The ripple effects are absolutely enormous.”

An undercount of the population could cost Appalachian communities billions of dollars of federal funding.

“We've estimated that West Virginia could lose \$188 million over the 10-year life of Census data with just a 1 percent undercount,” says Allen. “There are areas in West Virginia with Census response rates under 75 percent.”

Areas such as those are classified by the Census as “hard-to-count” areas.

2020 Census: What You Need to Know

What the Census counts: The goal of the Census is to count every resident living in a particular place on April 1, 2020. That includes non-citizens, children under 5, relatives sleeping on a couch, students living in a dorm, and people living in jail cells or on the street. Visitors should be counted in the place where they live and sleep most of the time. If they don't have a normal residence to return to, they should be counted where they are on April 1.



How to contact the Census: The answers to many questions can be found at 2020census.gov. Information about temporary Census jobs and how much they pay can be found at 2020census.gov/jobs. The Philadelphia office, which covers most of Northern and Central Appalachia, can be reached at (800) 262-4263. The Atlanta office, covering Southern Appalachia, can be reached at (800) 424-6974.

What to expect: Most households will receive a postcard in mid-March that includes a URL and a unique code to respond online. Residents will also be able to call a toll-free number to complete their census. Some households in hard-to-count areas will receive a hand-delivered door-hanger. Following that initial contact, reminders will go out weekly. The fourth reminder will include a paper questionnaire. Around the end of April, after the fifth reminder, Census workers will start going door-to-door to households that haven't responded.

What Census workers won't ask: No one from the Census will ask you for your citizenship status, Social Security number, credit card or bank information or donations. Every Census worker has an ID badge. To verify whether someone actually works for the Census, call (800) 923-8282.



Census workers will only visit residences in person if the household does not respond to repeated mailings. Photo courtesy of the U.S. Census Bureau

One-fourth of West Virginians live in hard-to-count areas, Allen says, higher than any other part of Appalachia.

There are many reasons that Appalachians are harder to count, according to Zimmerman. The region is largely rural — and 79 percent of hard-to-count areas are rural. “That means a higher incidence of people with lower incomes, sometimes with no phone or internet access,” Zimmerman says.

The lack of broadband internet access is especially important this year as the Census Bureau shifts to encouraging people to fill out Census forms online for the first time.

“That works great if you have access to the Internet or broadband service, but you can't assume universal access in rural areas like Appalachia,” Zimmerman says. “If you don't have access to the internet, know that Census workers will be following up.”

Residents will also be able to respond by phone, according to Timothy Maddaloni, assistant regional Census manager for the Philadelphia Regional Census Center. “We've also been partnering with local libraries, universities and schools to open up their facilities so people can reply online.”

The Trump administration's attempt to add a citizenship question to the Census has also made many non-citizens, and citizens with undocumented relatives, wary of this year's Census. Following a decision from the U.S. Supreme Court, the proposed question was struck down and the 2020 form does not ask for citizenship status. Instead, the administration is seeking to

build a citizenship list from other data sources. But confusion over the topic and fear in the immigrant community is likely to deter participation and lead to an undercount, former Census administrator Mark Doms told Reveal.

One way to spread the word in hard-to-reach communities is to make sure that the Census workers who will go door-to-door are actually from the community, according to Maddaloni. “That's why it's so important we have a large applicant pool from these hard-to-count areas,” he says.

These temporary Census jobs pay from around \$13.50 an hour to more than \$20 an hour, depending on locality, and have flexible hours, according to Maddaloni, who encouraged interested job-seekers to apply at 2020census.gov/jobs. Applicants have to go through a formal background check and will receive training.

“It could be a second job for some,” says Maddaloni. “We need more people to apply to make sure we can get an accurate count.”

There are steps that states and communities should take to ensure an accurate count, according to Allen. Her organization pushed hard for West Virginia to establish a Complete Count Committee — which the state did last August.

These committees are part of a Census program designed to help states and localities educate and encourage residents to take part in the Census. Committees are made up of local government and community leaders. They

Continued on page 28

Sneaky Invaders Beware of spreading these common invasive species

By Carolina Norman

Many invasive species are hiding in plain sight at plant nurseries, waiting for unsuspecting gardeners to scoop them up and bring them to a new yard from which to spread. The Southeast harbors some of the most biodiverse ecosystems in the country, but plants introduced by humans threaten the region's ecology as they encroach on native plant species.

Invasive plants are often characterized by fast growth rates, efficient seed dispersal and rapid germination. They are especially problematic in human-disturbed areas because they often take hold faster than native species. Aggressive invasive species block the amount of sunlight, water, nutrients and space native plant species are able to get. Without natural checks, invasive species can crowd out other plants, diminishing biodiversity and limiting the food available to wildlife.

Below are some of the most common invasive species sold in garden centers. Avoid introducing these into your yard and local ecosystems.

Callery "Bradford" Pear Tree

Pyrus calleryana

Widely used for landscaping in residential areas and appealing for its white blooms in spring, this tree will invade disturbed areas and displace native species, often shading them out. The



Callery pear can germinate and grow rapidly, making it an especially aggressive competitor. Photo: Lee Coursey

English Ivy

Hedera helix

English ivy is a popular ground-cover and is swallowing woodlands and deteriorating structures. This highly adaptive species can cover trees such as maples, oaks and elms. English ivy grows from the ground up into tree canopies, impeding photosynthesis and weighing down treetops, increasing the risk of trees blowing down during storms. Photo: Luke McGuff



Japanese Honeysuckle

Lonicera japonica

Popular for its sweet-smelling blooms, this vine can form dense mats, invading forest floors and creeping into tree canopies where it shades everything below. Japanese honeysuckle encroaches on habitats such as wetlands, forests, roadsides and disturbed areas. Photo: Kumiko



Japanese & Chinese Wisteria

Wisteria floribunda & *Wisteria sinensis*

Despite its weedy and destructive habits, wisteria is widely sold



and planted. This species climbs trees, shrubs and structures, smothering and shading out native species. Japanese and Chinese wisteria also cut through bark, killing trees as it twists around their branches. Photo: mrhayata

Multiflora Rose

Rosa multiflora

This rose's sweetly scented blooms make it attractive for landscaping — but once it spreads, this species forms thorny, impenetrable thickets in fields and forest edges, restricting livestock and wildlife movement and displacing native vegetation. The multiflora rose easily adapts to a variety of habitats, making it especially threatening to native plants. Photo: Andreas Rockstein



Oriental Bittersweet

Celastrus orbiculatus

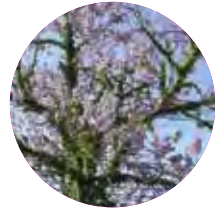
A woody vine coveted for its clusters of distinctive red seeds, Oriental bittersweet can climb up to 60 feet into tree canopies and colonize forest edges, roadsides and meadows. This vine rapidly forms dense thickets and has a diverse range, threatening a variety of native species from the ground to the tree canopy. Photo: Jeffrey Shultz



Princess Tree

Paulownia tomentosa

A rapid-growing tree, appealing for its fragrant purple blooms, the princess tree often appears along roadsides, stream banks and forest edges. Often invading following a fire or human disturbance, this tree can adapt to a variety of habitats. Photo: Kumiko



Sweet Autumn Viburnum

Clematis terniflora

With small, white blooms, this attractive vine is frequently sold in nurseries. Sweet autumn viburnum invades forest edges and urban areas along streams and roads. It grows into dense blankets, covering native species and blocking light from reaching the plants underneath. Photo: Kit Case



Winged Burning Bush

Euonymus alatus

This popular plant, widely sold for its hardiness and intense red foliage in fall months, forms dense thickets that can displace many native plant species. Instead, opt for a similar variety of this species that is not invasive, *Euonymus alatus* 'Compactus.' Photo: Jack Pearce



Census

Continued from page 27

receive Census training and can direct local funding to increase awareness of the Census.

"A little bit of state funding can have a huge return on investment," says Allen. "This will help make sure we get our fair share of federal funding — which is so important in these areas that have been historically underinvested in."

Census data can be extraordinarily valuable for local communities, according to Zimmerman.

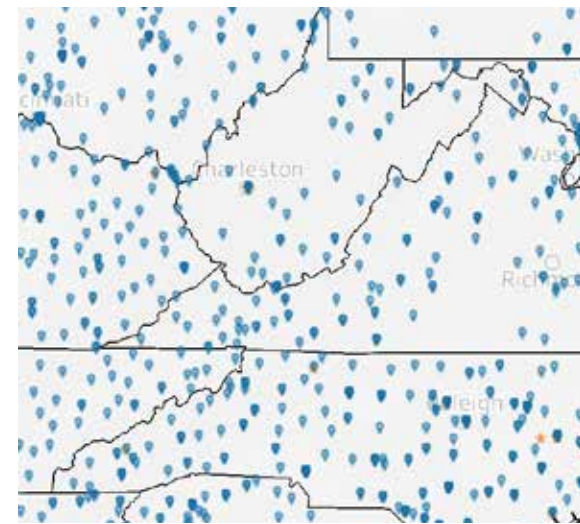
"One of the things the Census can do is give us local information so that we can plan for our futures," she says. "This is of particular importance in Appalachia as we are facing a post-coal transition. Knowing what these numbers are is even more essential."

Census data helps communities know when they need to build new schools, plan road construction, adjust zoning regulations, set public transportation routes and adapt other services, according to Allen.

"It's not just another bureaucratic form," she says. "The data help us see how families are doing. It definitely helps us identify opportunities for better policies and what areas need more help."

The data can also be put to more personal use, according to Zimmerman. She states that families have used Census information to trace their family histories. Importantly, she adds, the law requires that personal information collected during the Census stay hidden for 72 years.

"The Census is totally confidential, says Zimmerman. "Census employees take a lifetime oath." ♦



Complete Count Committees aim to make sure an area is fully counted. Map of Census Count Committees, accessed from U.S. Census Bureau website, Feb. 4, 2020.

The Energy Report

Endangered Species Rulings Could Impact Energy Projects

In January, the U.S. Fish and Wildlife Service proposed protecting 445 stream miles in Central Appalachia as critical habitat for two endangered species, the Big Sandy crayfish and the Guyandotte River crayfish. This means that developers of any federally funded or permitted project that affects this area would need to consult with the agency beforehand.

The waterways where these crayfish live are heavily impacted by coal mining, so this may impact permitting for new mines. The Guyandotte River crayfish is currently found in only two streams in West Virginia, and the Big Sandy, as its name suggests, is found in the drainage of the Upper Big Sandy River in Kentucky, Virginia and West Virginia.

The two species were listed as endangered in 2016. Both the listing and the habitat designation came in

response to legal actions filed by the Center for Biological Diversity, a nonprofit wildlife advocacy group.

Following a lawsuit by multiple environmental organizations, a federal judge ordered the Fish and Wildlife Service to reconsider its decision to classify the northern long-eared bat as threatened rather than endangered. In its primary habitat, the bat has lost 90 percent of its population since 2006. It prefers mature forest along hillsides and ridgelines.

"We hope this ruling will be a step toward protecting bats from mountaintop removal [coal mining], as well as protecting human communities' health from this deadly practice," Vernon Haltom of Coal River Mountain Watch, a grassroots group involved in the legal challenge, said in a press statement. — By Molly Moore

Virginia Legislature Passes Clean Economy Act

On Feb. 11, the Virginia House of Delegates and Senate passed different versions of the Clean Economy Act, which sets a deadline of 2050 for the state to achieve zero carbon emissions from the power sector and transition to 100 percent renewable energy.

Under the Clean Economy Act, electric utilities would be required to slowly transition to 100 percent renewable energy sources over the next 30 years, meeting annual goals along the way. This mandatory renewable energy portfolio standard would replace the state's voluntary program. The bill would also require utilities to achieve annual energy savings targets through implementation of energy efficiency programs. It would also encourage residential solar.

Some opponents of the bill have argued that the legislation is not ambitious enough in its timeline for reducing carbon emissions. Others have expressed concern that it would rapidly increase electricity costs due to early retirements of coal and gas plants as well as large new investments in offshore wind.

State Sen. Jennifer McClellan told the Virginia Mercury that the risks posed by climate change justify the potential for higher bills.

"The cost of doing nothing is staggering," she told the Mercury on Feb. 11.

For more about the Virginia legislative session, see page 30. — By Kevin Ridder

Trump Proposes Major Rollback of Key Environmental Law

President Donald Trump announced sweeping rollbacks to the National Environmental Policy Act in January. The law gives the public an opportunity to be involved in major permitting decisions that affect the environment and public health.

The changes would eliminate the requirement for agencies to review the cumulative impacts of projects like pipelines, power plants and highways, including their impacts on climate change. Additionally, if a highway were proposed for an area that already has poor air quality, the review process would not take the highway's impact on cumulative neighborhood air quality into account. The proposals would also restrict public comment, impose stricter timelines for reviews and allow agencies to exempt more types of projects from the law.

On Feb. 13, the nonprofit Southern Environmental Law Center filed a preliminary injunction to block the rule change from going into effect, arguing that the Trump administration was failing to provide required public documents about its decision. The administration had said the documents

would be made available in November, but the public comment period for the proposed rollback was scheduled to end on March 10.

Supporters of the change have argued it will end unnecessary environmental reviews. Under current law, however, such reviews only occur when the agencies involved declare a proposal will have a significant environmental impact. Of the 50,000 projects that could be subject to environmental review annually, environmental impact assessments are only conducted in 500 cases, according to The Partnership Project, a nonprofit group that opposes the NEPA change.

The Tennessee Valley Authority requested exemptions from NEPA in 2017 that go beyond the current proposals. TVA Public Information Officer Jim Hopson stated in February that the utility plans to finalize those changes soon, and that the White House rule changes would not affect TVA's process.

To submit a comment on the federal changes, visit regulations.gov and search for Docket ID No. CEQ-2019-0003, or visit protectyourvoicenow.org. — By Molly Moore

Permit for Perry State Forest Mine in Ohio Cancelled

On Jan. 30, the Ohio Environmental Protection Agency announced it was withdrawing the wastewater discharge permit for a proposed 500-acre surface coal mine slated for Perry State Forest in eastern Ohio. The move raises doubts about whether the company, CCU Coal and Construction, will pursue its plans for the site.

Local grassroots organization Friends of Perry State Forest and the statewide advocacy group Ohio Environmental Co-

alition had filed an appeal of the permit on Jan. 22, 2019.

"The state heard from more than 1,000 local residents, businesses and recreationists who spoke loud and clear that they didn't want to see our public forest handed over to a private company to be destroyed," Lauren Ketcham, a farmer in New Lexington, Ohio, and public relations chair for Friends of Perry State Forest, said in a press statement. — By Molly Moore

Appalachia's Environmental Votetracker

116TH 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 congress.gov. ● = pro-environment vote ✗ = anti-environment vote ○ = no vote

	Kentucky			Tennessee			North Carolina			Virginia		West Virginia				
HOUSE	T. Massie (R) KY-04	H. Rogers (R) KY-05	A. Barr (R) KY-06	P. Roe (R) TN-01	T. Burchett (R) TN-02	Fleischman (R) TN-03	S. Desjardis (R) TN-04	V. Foxx (R) NC-05	P. McHenry (R) NC-10	M. Meadows (R) NC-11	D. Riggleman (R) VA-05	B. Chene (R) VA-06	M. Griffith (R) VA-09	D. McKinley (R) WV-01	A. Mooney (R) WV-02	C. Miller (R) WV-03
H.R. 535, the PFAS Action Act of 2019, requires the U.S. Environmental Protection Agency to designate PFAS, a class of chemicals including GenX commonly used for non-stick coatings, as hazardous. YES 247 NOES 159 NV 24 ... PASSED	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
H.Amdt. 738 to H.R. 535, amended the PFAS Action Act to require the EPA to review and develop wastewater and treatment standards for PFAS. YES 242 NOES 168 NV 26 ... PASSED	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

Solar, Environmental Justice and Utility Reform in Virginia

Appalachian Voices and our partners have a strong presence in the Virginia General Assembly this session. We are advocating for policies in three key areas: reforming public oversight of monopoly utilities, ensuring all customers have access to clean, affordable energy like solar, and strengthening environmental justice. The session was ongoing at press time.

In the solar arena, we're pushing to lift restrictions on home solar and expand third-party financing, a critical tool for reducing the cost of solar. Additional legislation could create community solar programs in which neighborhoods or

apartment dwellers can all benefit from a shared solar facility. We are also working to create a grant program in the state budget to encourage renewable energy development on coal-impacted lands and other brownfields.

Among the bills we are supporting with the Virginia Environmental Justice Collaborative is one that would ensure state agencies develop environmental justice policies that are incorporated into their decision-making.

Regarding electric utility regulation, one bipartisan bill we are backing would restore regulators' authority to review

electricity rates and set reasonable profit levels for Dominion Energy. Another would protect consumers from paying billions of dollars for pipeline infrastructure if the state finds the additional fuel unnecessary or not cost-effective to provide electricity to customers. We also supported a bill to end Virginia's monopoly utility system and allow families and businesses to choose where they get their electricity. That measure was carried over to the 2021 legislative session.

See the status of these bills and contact your representative at appvoices.org/va-legislature-2020.



Chelsea Barnes of Appalachian Voices lobbies in Richmond, Va., in favor of a grant program that would incentivize solar development on former mine and industrial sites.

Welcoming New Members to Our Board of Directors

Bill Bailey grew up in a small Michigan farm town before moving to Washington State for his undergraduate and master's degrees. After two decades in operations, marketing, training and human resources, he joined the N.C.-based grocer The Fresh Market as VP of Human Resources in 1994 and served in that position until retiring in 2013.



Bill Bailey



John Dezember

Bill first became involved with Appalachian Voices when he joined with his North Carolina community to fight coal ash pollution at Duke Energy's Belwus Creek coal plant. He brings decades of business experience along with service on the boards of the March of Dimes, Juvenile Diabetes Research Foundation and the Muscular Dystrophy Association. Bill and his spouse Tucker live on a farm outside Mocksville, N.C.

John Dezember developed a love and

respect for nature early in life through frequent outdoor excursions as a member of the Boy Scouts in Kentucky and Tennessee. He earned a degree in information technology while living in Knoxville, Tenn., and worked as a systems integrator while honing his web development skills. He went on to work in higher education as a web developer where he also gained experience in social media, video production and live streaming.

John recently relocated to Virginia where he is the Director of Strategic Communications at Southwest Virginia Community College. His interests include working with electronics, home gardening, solar and building a sustainable lifestyle.

We also bid a fond farewell to Pat Holmes after two terms on our Board of Directors. His service is deeply appreciated.

Celebrating a Coal Ash Win in N.C.

In January, the North Carolina Department of Environmental Quality reached a settlement with Duke Energy to excavate nearly 80 million tons of coal ash at six of the utility's coal-fired power plants. The settlement is a result of a lawsuit filed by the nonprofit Southern Environmental Law Center on behalf of Appalachian Voices and numerous other environmental organizations.

We are so proud to be part of this fight alongside ACT Against Coal Ash and all the many, many people who attended a hearing, made a phone call, gave testimony, sent an official comment on a rulemaking, turned out at a rally, printed flyers, or kept the home fires burning while others went to the frontlines. We salute you! Read more on page 14.

Advocating for Abandoned Mine Cleanup Bills

Thousands of mine sites across the country were abandoned before the law requiring surface mine reclamation passed in 1977. Every day, these sites jeopardize human health and safety, along with our air and water. The fee that funds cleanup of abandoned mines is set to expire in 2021, even though billions of dollars in cleanup costs remain — and the situation will only get worse unless Congress reauthorizes the fee.

We, along with numerous partner organizations, are backing two federal bills aimed at cleaning up these dangerous sites, and local communities are passing resolutions in support of the program (read more on page 21). In January, we cheered as a bill to reauthorize the abandoned mine program for 15 years passed a U.S. House of Representatives committee. Now, the bill awaits passage by the full House.

We're also lobbying to see that the RECLAIM Act joins the Abandoned

Mine Lands bill on the House floor.

The RECLAIM Act would accelerate the cleanup of abandoned coal mines while creating jobs in areas hard-hit by the decline of coal mining jobs. To do this, the RECLAIM Act would fast-track the spending of money that is already allocated for cleaning up abandoned coal mines, prioritizing projects that boost local economies and have local support. But the RECLAIM Act can only do this if the Abandoned Mine Land program is successfully reauthorized.

We're pushing for quick passage of both of these bills in the House to ensure that our legislators can bring them to the U.S. Senate when senators are considering must-pass legislation this year. If you live in a community affected by these issues and want to get involved, email Erin Savage at erin@appvoices.org. To stay up-to-date and receive legislative action alerts, visit appvoices.org/sign-up.

No Rate Hikes for Dirty Energy!

In January, we attended rate hike hearings for Duke Energy Carolinas. Hearings for Duke Energy Progress are up next. Tell Duke Energy no more rate hikes for dirty energy! If you won't be able to attend, submit your comments via email to statements@ncuc.net with the subject line "DOCKET NO. E-7, SUB 1214." Read more on page 12.

Public hearing dates:
Feb. 27, 7 p.m.: Rockingham
March 2, 7 p.m.: Raleigh
March 3, 7 p.m.: Wilmington
March 4, 7 p.m.: Snow Hill
March 23, 2 p.m.: Raleigh (*Evidentiary hearing for Duke Energy Carolinas*)
May 4, 2 p.m.: Raleigh (*Evidentiary hearing for Duke Energy Progress*)

Member Spotlight

Tom McIntosh Service in Action

By Carolina Norman

"We have to take care of the environment," says Tom McIntosh. "It's the air we breathe, the water we drink, where we recreate. You know, it's our home. We need to take care of it."

He cites environmental problems he has seen around the country as a reason for his care of the environment. "I've seen dumps and pollution and whatnot and that's not the way to go," he says.

Tom is happily married to his wife, Carol, of 40 years, and has been living in Virginia for 30 of those.

"We certainly enjoy life in Central Virginia — I mean the weather's good, it's great for getting outdoors, which we both like to do a lot," Tom says.

Tom hopes that Appalachia maintains its rural character. "For something on the East Coast, it's remarkably rural once you get away from the big cities, so



I would like to see that retained," he says.

At the same time, he acknowledges that people in the region need jobs, and hopes that clean industries would provide those opportunities in contrast to the history of fossil fuels in Appalachia.

Tom is a retired commodity trader and has spent the last few decades maintaining an abundant schedule of volunteering in and around Charlottesville, Va.

When one of his three sons was looking for a community service opportunity, Tom suggested adopting a trail in Shenandoah National Park.

"We adopted a trail in the late '90s and he helped me for a couple years," says Tom. "Then my second son helped me maybe a year, then it was mine," he

Solarize Southwest Virginia

Going solar is easier and cheaper when you do it with others! This spring, the Solar Workgroup of Southwest Virginia is offering a Solarize SWVA program to help residents of Buchanan, Dickenson, Lee, Russel, Scott, Tazewell and Wise counties and the City of Norton find out whether solar makes financial sense for them and to help them save money if they decide to make the solar switch.

Participating in a Solarize program can save residents thousands of dollars. By working on multiple homes in the area, the solar installer

can offer lower prices for customers because the company can get bulk purchase discounts and save money on marketing. Participants also have free access to the Solar Workgroup's experts.

For a free home solar assessment and to register, visit swvasolar.org/solarize-southwest-virginia or call Appalachian Voices' Southwest Virginia Solar VISTA Austin Counts at (276) 679-1691. There's no obligation to spend a penny, just the opportunity to see whether solar works for your home and learn more about your options.

Come See Us in Durham!

Appalachian Voices is setting up shop in the North Carolina Piedmont. To better advance the interests of our region in the halls of the state legislature, we recently opened an office in Durham. This serves as the home base for N.C. Program Manager Amy Adams and N.C. Field Coordinator Josh McClenney, as well as our federal advocate,

Senior Legislative Representative Thom Kay. We look forward to deepening our connections with longtime supporters and allies in the Triangle and further building our community!

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laughs. "I've kept at it and I enjoy going up there and working on the trail all seasons of the year. It's a great way to get outdoors and do some good."

For about 15 years, Tom has also helped maintain a trail for The Nature Conservancy in Nelson County, Va. He has also helped coach and fundraise for the men's club crew team at the University of Virginia for the last 30 years. In addition to his other commitments, Tom teaches physical education at Free Union County School, a small private elementary school in Albemarle County, Va., where his three sons attended.

Tom also volunteers to distribute 1,100 copies of The Appalachian Voice around Charlottesville, Va., which he has been doing for the last three years. He says that the part of the publication that sticks out to him is "mostly about people and how they're helping the community."

Now Hiring!

We are seeking a Field Coordinator based in our Norton, Va., office to work with our New Economy team in Southwest Virginia. The Field Coordinator will support community leaders and new and existing community-based organizations, and execute strategic campaigns focused around solar, coal-impacted land redevelopment and land ownership issues.

To learn more, visit appvoices.org/careers.

Appalachian BUSINESS LEAGUE
New & Renewing Members
December 2019/January 2020

Apex Clean Energy
Charlottesville, Va.
Farnum and Christ Travel
Bristol, Tenn.
Morris West, Inc.
Greensboro, N.C.
Riverside Outfitters
Richmond, Va.

To join our Business League, visit AppVoices.org or call 877-APP-VOICE

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

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Hemp farmer Don Smith, II, stands proudly next to his field in Tornado, W.Va. Smith works for a company focused on developing markets for industrial hemp. Like many in the fledgling industry, he is finding that growing and selling hemp has challenges as well as promise. Turn to the centerspread to read more. Photo courtesy of Don Smith, II.

You can make a difference!

Appalachian Voices is working to end our dependence on dirty fossil fuels and advance a clean and equitable energy future for Central and Southern Appalachia.

We rely on the generosity of our supporters to fund our work and help us keep the public informed about important issues affecting the Appalachian region and the communities that live here. Donate today to protect our mountains for future generations.

AppVoices.org/join

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