Who Owns the Land?

In Appalachia, the answer is complicated

Also Inside:

- Cougars: Ghosts of the Forest
- Homeowners Face Blasting Concerns
- A Hidden Gem of East Tennessee
Join us this spring to hear experts discuss some of the topics below:

**2016 Environmental & Cultural Events**

---

**About the Cover**

Summer 2000 was the last time we passed this spot in Bluenose, N.C., on our daily commute. On the morning of Tuesday, May 4th, 1994, he arrived before dawn to film the site as snow fell in Bluenose snow. The rusted barn was demolished two years later, and this scene was forever changed. Miller is a regular contributor to *The Appalachian Voice*. View his art at dreamphotography.com

---

**Voices Singing in the Rain**

We are hard at work and have high hopes for the year ahead. Thank you for standing with *Appalachian Voices*. For the forest,

Toni Curtis, Executive Director

---

**Current Americans**

Every year for the past eight years, AmeriCorps has celebrated National Service Week, honoring the thousands of Americans who serve in more than 20,000 service opportunities across the country. This year, the America Speaks Foundation and AmeriCorps celebrated National Service Week from March 22 to March 30, 2015.

**Current Volunteers**

- Micah Avila, Karen Austin-Avila
- Danielle Bay, Danielle Bay
- Jake Bristoll, Jake Bristoll, Smoke Coffee
- Ginger Brubaker, Ginger Brubaker
- Chelsea Buehrer, Chelsea Buehrer
- Lynn Brammer, Lynn Brammer
- Ben Bristoll, Smoke Coffee
- Mary Chapman, Mary Chapman
- Jeni Chapman, Jeni Chapman
- Connor Cleary, Connor Cleary
- Allison Auciello, Karen Austin-Avila
-лагеря, Ларри Кинтингер, Ларри Кинтингер
- Lagrange, Lagrange
- Elizabeth Lowry, Elizabeth Lowry
- Jim Stockwell, Jim Stockwell
- Melanie Sigmon, Melanie Sigmon
- Lucy Spencer, Jennifer Stertzer, Jim Stockwell, Lucy Spencer, Jennifer Stertzer, Jim Stockwell
- Tom Thompson, Tom Thompson
- Matt Grimley — 2012-13
- David John Nerius, David John Nerius
- Lauren Kneeland, Lauren Kneeland
- Shane Hubert, Shane Hubert
- Matt Grimley — 2013-14
- Michael Hargreaves, Michael Hargreaves
- Laura Auciello, Mike McKinney, Laura Auciello, Mike McKinney
- Karen Austin-Avila, Karen Austin-Avila
- Matt Grimley — 2011-12
- Sarah Hubert, Sarah Hubert
- Ann Marie Doughty, Ann Marie Doughty
- Mark Bixler, Mark Bixler
- Robbi Bristoll, Smoke Coffee
- Dave Bristoll, Dave Bristoll
- Jennifer Rotella, Jennifer Rotella
- Mary Chapman, Mary Chapman
- Jeni Chapman, Jeni Chapman
- Connor Cleary, Connor Cleary
- Allison Auciello, Karen Austin-Avila
- Пак синой лиственной луговины, Пак синой лиственной луговины
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтингер
- Андрей Курнаев, Андрей Курнаев
- Николай Балин, Николай Балин
- Ларри Кинтингер, Ларри Кинтингер
- Ларри Кинтингер, Ларри Кинтinger
New Program Makes Learning Cherokee Easier

By Elizabeth E. Payne

Cherokee is one of the most difficult languages to learn, according to Barbara Duncan, the education director at the Museum of the Cherokee Indian in Cherokee, N.C. But a new language program — “Your Grandmother’s Cherokee” — is changing that.

The program results from the insights of John Standingdeer, Jr., a member of the Eastern Band of Cherokee Indians. He told the Asheville Citizen-Times that he did not grow up speaking Cherokee and found learning it hard.

According to Duncan, long Cherokee words contain as much information as an English sentence. But then Standingdeer discovered patterns within the words, patterns which Duncan says “are like a math equation.”

Since 2006, Standingdeer and Duncan — with computer-programming help from Duncan’s sister — have spent their free time developing the language program. In October 2015, their method was granted a U.S. patent.

“Your Grandmother’s Cherokee” teaches the language by not memorizing the complicated words, but by recognizing the patterns within them, making Cherokee easier to understand and use. Duncan estimates that only 200 of the 13,000 members of the Eastern Band grew up speaking their tribal language, and all are over 55 years old. She feels an urgency to study this endangered language, which she stresses is “the original language of the Appalachians.”

A symposium will be held March 29 to June 2 at the University of North Carolina, Asheville, to explore Standingdeer and Duncan’s method to preserve and teach other indigenous North American languages.

The program currently offers an online dictionary and two levels of coursework, with two additional levels expected soon. For more information visit yourgrandmotherscherokee.com

Public Art Project Reimagines Energy Use

By Eliza Laubach

Charlottesville, Va., residents will soon have a sideways view of their energy use — on an electric pole. At eight different junctures of the city’s 53 neighborhoods, stripes on the poles will, like a bar graph, compare the average and previous month’s electricity and natural gas use in homes within the two intersecting boroughs.

Artist Matthew Slaats designed the installations to build awareness around energy use and infrastructure. “Our relationship with energy is not something we can turn off,” he says, “and the light poles, they’re everywhere and nowhere at the same time.”

The project is part of the two-year Energized Charlottesville campaign, and is funded by the city and the Piedmont Council for the Arts. Among six local artists, Slaats won a $5,000 award to implement a captivating project that encourages residents to use less energy. The installations will be up for six months to a year; at its conclusion, the artist will organize block parties at each site to deepen community engagement.

Slaats, who also serves as executive director of The Bridge Progressive Arts Initiative, says that building connections and bringing people together in a driving force in his work.

Hopes are high that the “pole graphs” project will help the city win the Georgetown University Energy Prize, a nationwide competition that will award $5 million to a town with the largest reduction in residential and municipal energy use over a two-year period. Charlottesville is one of 50 competing cities from across the United States trying to reduce its community energy consumption. For more information, visit energizecharlottesville.org

Expanded Conservation Tax

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

When Congress first increased the tax break from 30 to 50 percent between 2006 and 2014, the amount of land placed into conservation easements rose by 33 percent, according to the Land Trust Alliance. In 2014, there were 67,500 conservation easements in place.

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

And there’s more. Landowners who conserve environmentally sensitive lands can also take advantage of a new provision in the tax code. They can turn off, “and the light poles, they’re everywhere and nowhere at the same time.”

The project is part of the two-year Energized Charlottesville campaign, and is funded by the city and the Piedmont Council for the Arts. Among six local artists, Slaats won a $5,000 award to implement a captivating project that encourages residents to use less energy. The installations will be up for six months to a year; at its conclusion, the artist will organize block parties at each site to deepen community engagement.

Slaats, who also serves as executive director of The Bridge Progressive Arts Initiative, says that building connections and bringing people together in a driving force in his work.

Hopes are high that the “pole graphs” project will help the city win the Georgetown University Energy Prize, a nationwide competition that will award $5 million to a town with the largest reduction in residential and municipal energy use over a two-year period. Charlottesville is one of 50 competing cities from across the United States trying to reduce its community energy consumption. For more information, visit energizecharlottesville.org

Expanded Conservation Tax

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

When Congress first increased the tax break from 30 to 50 percent between 2006 and 2014, the amount of land placed into conservation easements rose by 33 percent, according to the Land Trust Alliance. In 2014, there were 67,500 conservation easements in place.

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

And there’s more. Landowners who conserve environmentally sensitive lands can also take advantage of a new provision in the tax code. They can turn off, “and the light poles, they’re everywhere and nowhere at the same time.”

The project is part of the two-year Energized Charlottesville campaign, and is funded by the city and the Piedmont Council for the Arts. Among six local artists, Slaats won a $5,000 award to implement a captivating project that encourages residents to use less energy. The installations will be up for six months to a year; at its conclusion, the artist will organize block parties at each site to deepen community engagement.

Slaats, who also serves as executive director of The Bridge Progressive Arts Initiative, says that building connections and bringing people together in a driving force in his work.

Hopes are high that the “pole graphs” project will help the city win the Georgetown University Energy Prize, a nationwide competition that will award $5 million to a town with the largest reduction in residential and municipal energy use over a two-year period. Charlottesville is one of 50 competing cities from across the United States trying to reduce its community energy consumption. For more information, visit energizecharlottesville.org

Expanded Conservation Tax

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

When Congress first increased the tax break from 30 to 50 percent between 2006 and 2014, the amount of land placed into conservation easements rose by 33 percent, according to the Land Trust Alliance. In 2014, there were 67,500 conservation easements in place.

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

And there’s more. Landowners who conserve environmentally sensitive lands can also take advantage of a new provision in the tax code. They can turn off, “and the light poles, they’re everywhere and nowhere at the same time.”

The project is part of the two-year Energized Charlottesville campaign, and is funded by the city and the Piedmont Council for the Arts. Among six local artists, Slaats won a $5,000 award to implement a captivating project that encourages residents to use less energy. The installations will be up for six months to a year; at its conclusion, the artist will organize block parties at each site to deepen community engagement.

Slaats, who also serves as executive director of The Bridge Progressive Arts Initiative, says that building connections and bringing people together in a driving force in his work.

Hopes are high that the “pole graphs” project will help the city win the Georgetown University Energy Prize, a nationwide competition that will award $5 million to a town with the largest reduction in residential and municipal energy use over a two-year period. Charlottesville is one of 50 competing cities from across the United States trying to reduce its community energy consumption. For more information, visit energizecharlottesville.org

Expanded Conservation Tax

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

When Congress first increased the tax break from 30 to 50 percent between 2006 and 2014, the amount of land placed into conservation easements rose by 33 percent, according to the Land Trust Alliance. In 2014, there were 67,500 conservation easements in place.

In December, Congress permanently increased a tax break to a 50 percent income tax deduction for landowners wishing to place their land under a conservation easement, which protects it for future generations by prohibiting or limiting development.

And there’s more. Landowners who conserve environmentally sensitive lands can also take advantage of a new provision in the tax code. They can turn off, “and the light poles, they’re everywhere and nowhere at the same time.”

The project is part of the two-year Energized Charlottesville campaign, and is funded by the city and the Piedmont Council for the Arts. Among six local artists, Slaats won a $5,000 award to implement a captivating project that encourages residents to use less energy. The installations will be up for six months to a year; at its conclusion, the artist will organize block parties at each site to deepen community engagement.

Slaats, who also serves as executive director of The Bridge Progressive Arts Initiative, says that building connections and bringing people together in a driving force in his work.

Hopes are high that the “pole graphs” project will help the city win the Georgetown University Energy Prize, a nationwide competition that will award $5 million to a town with the largest reduction in residential and municipal energy use over a two-year period. Charlottesville is one of 50 competing cities from across the United States trying to reduce its community energy consumption. For more information, visit energizecharlottesville.org
Two-year Anniversary of Charleston Water Crisis

By Elizabeth E. Payer

On January 9, 2014, 11,000 gallons of a toxic chemical, MCHM, spilled from a Freedom Industries tank into the Elk River near Charleston, W.Va., leaving 300,000 West Virginians without safe drinking water.

Two years later, a report released by Boston Action Research on Jan. 7 found that West Virginia American Water, the company providing water to 40 percent of the state’s 95 counties, according to the Knoxville News Sentinel, has been in prog-

Continued content and cleanup of the treatment facility has been in prog-

Two-year Anniversary of Charleston Water Crisis

By Elizabeth E. Payer

On January 9, 2014, 11,000 gallons of a toxic chemical, MCHM, spilled from a Freedom Industries tank into the Elk River near Charleston, W.Va., leaving 300,000 West Virginians without safe drinking water.

Two years later, a report released by Boston Action Research on Jan. 7 found that West Virginia American Water, the company providing water to 40 percent of the state’s 95 counties, according to the Knoxville News Sentinel, has been in prog-

Continued content and cleanup of the treatment facility has been in prog-

Two-year Anniversary of Charleston Water Crisis

By Elizabeth E. Payer

On January 9, 2014, 11,000 gallons of a toxic chemical, MCHM, spilled from a Freedom Industries tank into the Elk River near Charleston, W.Va., leaving 300,000 West Virginians without safe drinking water.

Two years later, a report released by Boston Action Research on Jan. 7 found that West Virginia American Water, the company providing water to 40 percent of the state’s 95 counties, according to the Knoxville News Sentinel, has been in prog-

Continued content and cleanup of the treatment facility has been in prog-

Two-year Anniversary of Charleston Water Crisis

By Elizabeth E. Payer

On January 9, 2014, 11,000 gallons of a toxic chemical, MCHM, spilled from a Freedom Industries tank into the Elk River near Charleston, W.Va., leaving 300,000 West Virginians without safe drinking water.

Two years later, a report released by Boston Action Research on Jan. 7 found that West Virginia American Water, the company providing water to 40 percent of the state’s 95 counties, according to the Knoxville News Sentinel, has been in prog-

Continued content and cleanup of the treatment facility has been in prog-

Two-year Anniversary of Charleston Water Crisis

By Elizabeth E. Payer

On January 9, 2014, 11,000 gallons of a toxic chemical, MCHM, spilled from a Freedom Industries tank into the Elk River near Charleston, W.Va., leaving 300,000 West Virginians without safe drinking water.

Two years later, a report released by Boston Action Research on Jan. 7 found that West Virginia American Water, the company providing water to 40 percent of the state’s 95 counties, according to the Knoxville News Sentinel, has been in prog-

Continued content and cleanup of the treatment facility has been in prog-

Two-year Anniversary of Charleston Water Crisis

By Elizabeth E. Payer

On January 9, 2014, 11,000 gallons of a toxic chemical, MCHM, spilled from a Freedom Industries tank into the Elk River near Charleston, W.Va., leaving 300,000 West Virginians without safe drinking water.

Two years later, a report released by Boston Action Research on Jan. 7 found that West Virginia American Water, the company providing water to 40 percent of the state’s 95 counties, according to the Knoxville News Sentinel, has been in prog-

Continued content and cleanup of the treatment facility has been in prog-

Two-year Anniversary of Charleston Water Crisis

By Elizabeth E. Payer

On January 9, 2014, 11,000 gallons of a toxic chemical, MCHM, spilled from a Freedom Industries tank into the Elk River near Charleston, W.Va., leaving 300,000 West Virginians without safe drinking water.

Two years later, a report released by Boston Action Research on Jan. 7 found that West Virginia American Water, the company providing water to 40 percent of the state’s 95 counties, according to the Knoxville News Sentinel, has been in prog-

Continued content and cleanup of the treatment facility has been in prog-
Researchers from Oak Ridge National Laboratory pair 3D printing with innovative approach to energy

By Kevin Rider

Additive manufacturing, more commonly known as 3D printing, has been around for a few years now. With its near-endless customization at the touch of a button and its ability to create highly complex products that would be impossible using traditional methods of production, it’s easy to see why.

Tucked in the hills of Oak Ridge, Tenn., Oak Ridge National Laboratory has been on the cutting edge of this technology for several years. After unveiling their fully 3D-printed Shelby Cobra sports car at the 2015 Detroit Auto Show, a project that took only six weeks from conception to finish, researchers at the nation’s largest national laboratory revealed their latest venture last fall.

The Additive Manufacturing Integrated Energy demonstration project, or AMIE, was conceived in August of 2011 and features a unique pairing of 3D printing and wireless energy transfer between a vehicle and a building.

The 3D-printed single-room building, primarily powered through solar panels on its roof when detached from the grid, is accompanied by a 3D-printed vehicle powered by a hybrid natural gas engine.

What makes the pair special, however, is the capability for energy to wirelessly flow between the two.

This means the vehicle can charge its battery through the building’s solar panels, and the 210-square-foot building can tap into the car using a tiny gas fuel cell. "If and when we are able to make this technology commercially available, there will be little to no transportation costs by only sending a printer and the material doesn’t have to be transported supplies altogether," says Biswas. "In the future, this could be used for an operating base [off-planet] where all we have to do is send a 3D printer to the site, possibly even using indigenous materials."

"Thus, the prior need to transport materials to space costing thousands of dollars per pound, has this potential to drastically reduce the cost of future space missions to the Moon, Mars, and beyond."

"Closer to home, AMIE has the potential to be used to provide homes and vehicles in remote locations and developing countries, where the power grid is often unstable or nonexistent. These ideas lend themselves to the primary advantage of AMIE: collaborative innovation."

"This project was not just about 3D printing, but about the concept as a whole," says Biswas. "We think that AMIE does allow us to think about different ways of solving problems and overcoming challenges."

"To learn more about AMIE, visit wiki.ornl.gov/AMIE/AMIE"

Hiking the Highlands

Birkeland Camp Lake, Hidden Gem of Rocky Fork

By Lewis Goff

I arrive at the Lower Higgins Creek trailhead a dozen other hikers, ranging from an 8-year-old to some with many miles and years to their credit. The jovial hanger of Ranger Tim Pharis, Retired Naturalist Marty Silver and Volunteer Naturalist Randy Hewett of Tennessee State Parks greets our group. This Fall Hike on January 1, will take us 2.7 miles to the 100-foot Big Falls on Lower Higgins Creek and Birkeland Camp Lake, a small, wooded Battleground sitting at 4,000 feet above sea level.

"Big Falls" comes from the old logging camp that was up here, named around the 1800s, Hewett explains. "The lake was cut to build wilderness." "As a mechanic, Hewett adds, "I have no time for this stuff."

After large-scale logging operations ceased in the 1960s, the 10,800 acres of the Cherokee National Forest known as Rocky Fork State Park, a National Forest, was purchased by the federal government in 1970. This land would become the Cherokee National Forest, Rocky Fork State Park, now in development, encompasses 2,000 acres of rocky rolling hills in Unicoi County, Tenn. The remaining 8,000 acres span portions of Union, Mitchell and Greene counties.

We start up the remnants of an old logging road, coming to a gravel parking area after a third of a mile. Hedge-path spots a putty root, a wild orchid with pin-striped leaves. It was traditionally used to seal windows, he says. "In the hip, this could be used for an operating base [off-planet] where all we have to do is send a 3D printer to the site, possibly even using indigenous materials."

"This project was not just about 3D printing, but about the concept as a whole," says Biswas. "We think that AMIE does allow us to think about different ways of solving problems and overcoming challenges."

"To learn more about AMIE, visit wiki.ornl.gov/AMIE/AMIE"
Blasted
Homeowners seek recourse for property damage due to mining

By Molly Moore

Karen Kirk’s father was a carpenter. He built her childhood home from local chestnut and oak in the mid-1960s. He was the second generation of his family to work on road construction. So when he learned that the mine on the ridge to the east—some 10 years before his death—was going into blast, he was startled. “I said to him, ‘Well, you didn’t knock me out of the house that’s true. I didn’t think I’d ever see that happen again,’ ” he says. “I didn’t withdraw anything.”

In February 2008, according to the Kirks, and 2008, according to the Kirks, they had already filed an official complaint with the state agency that oversees mining and blasting, which is obligated to send an inspector to investigate. The inspector checks the home and keeps a record of the site, and uses an electronic seismograph to determine whether the blasts complied with the law. If the inspector determines that the damage is a result of blasting, the state is then required to determine whether compensation is necessary to limit the size and frequency of the blasts, or—in theory—these regulations should protect nearby residences from property damage. If destruction does occur, state law outlines a process that is supposed to lead to compensation. But as Jerry and Karen Kirk have found out, that isn’t straightforward.

Due Diligence

Like many residents of Mingo County, the Kirks are not strangers to coal. Jerry worked as an underground miner from 1988 to 1997 at Marrowbone Development Company, a mine that included compounds used in blasting. He also became familiar with the destructive power of blasting while working on road construction. So Karen and Jerry Kirk stand on the front porch of their home. "I don’t know where I was when she was home for a blast. ‘I would get ready to run. It was so bad and it scared me. I don’t know where I was going,” adds a woman with a wry chuckle, “but I was going to run.”

"When it scares the dogs, the windows rattle, you know to expect that from an air blast,” says Jerry. “But when the house starts (going) up and down, that’s too much.” Why?:

The Kirks’ story is a common one among families that live near surface coal mining. Their neighbors joined the lawsuit in what has become a federal Office of Surface Mining lawsuit involving blasting problems after many years, residents near active mine sites, feel still enjoy each just as powerfully as during coal’s boom years. Blasting is an essential component of surface mining; using explosives to blow up the land and access the coal beneath is what makes this form of extraction cheap—particularly intense explosions. And these scattered throughout Appalachia.

"These more fragile homes are much more susceptible to damage from blasting-induced ground vibrations,” he wrote. “In many other countries, the engineers played a much lower threshold for damage.”

In a 2010 report prepared for a court case involving blasting complaints in Mingo County, W.Va., Kiger compared the blasting limits from the Indiana study to Australian standards for historical blasting. "We found that the blasts were well within legal limits, even when homeowners witness damage to their property that coincides with the explosions. In the Kirks’ case, the inspector who arrived in March 2008 found no evidence of excessive ground or air vibration limits.” According to the inspector, the explosions were in compliance.

Jerry recalls sitting at the kitchen table, thinking what he would do if the mine operator modified their blasting procedures. Photos by Molly Moore

In Compliance

The federal Office of Surface Mining, Reclamation and Enforcement requires that mine operators offer what’s known as a preblasting survey to people living within a certain distance of the mine. The survey documents the intensity and extent of the structure and the property’s water quality, and the Kirk family didn’t respond. The company never withdrew the claim on 3/20/08. “They decided whether to appeal or withdraw the claim. In a 2010 report prepared for a court case involving blasting complaints in Mingo County, W.Va., Kiger compared the blasting limits from the Indiana study to Australian standards for historical blasting. "These more fragile homes are much more susceptible to damage from blasting-induced ground vibrations," he wrote. "In many other countries, the engineers played a much lower threshold for damage." In 2010 a report prepared for a court case involving blasting complaints in Mingo County, W.Va., Kiger compared the blasting limits from the Indiana study to Australian standards for historical blasting. "These more fragile homes are much more susceptible to damage from blasting-induced ground vibrations," he wrote. "In many other countries, the engineers played a much lower threshold for damage."
Corporate ownership has long exerted a powerful influence over Appalachian’s natural and economic landscape. Mountaintop removal coal mining, natural gas fracking, and pipeline projects all raise complicated questions about residents’ property rights and can infringe on their homes, farms and future plans for their land.

On the following pages, we take a fresh look at issues of property holdings and landowners’ rights. The topic might be complicated, but for impacted residents, the question of right and wrong are simple.

Owning the Mountains: The long history of corporate control in Appalachia

By Elizabeth E. Payne

Throughout the history of the United States, Appalachia has attracted the attention of outside investors hoping to profit from the region’s valuable commodities. First timber, then coal and now natural gas are all highly valued.

To ensure access to these resources, early investors bought large parcels of land in Appalachia. By 1910, as much as 93 percent of [the] land in present day West Virginia was held by absentee owners,” according to a report issued by the West Virginia Center on Budget and Policy, and by the 1980s, outside interests began purchasing extensive timber and underground mineral rights on land whose residents remained the only surface rights.

Outside ownership of large tracts of land for the purpose of resource extraction has created a conduit through which significant wealth has been drained from the region in the form of corporate profits. And that drain has been flowing for more than a century.

An Early Study of the Problem

In 1974, Tom D. Miller, a reporter for the The Huns- tering Herald-Diaptch, conducted a study of landownership patterns in West Virginia. Miller found that two-thirds of the private land in the state was owned or controlled by “ absentee landlords,” and that “ in almost 50 percent of West Virginia counties, at least half the land is owned by outside corporate interests.”

Comparing the wealth of corporations to that of many West Virginians, Miller wrote, “ Often paying tiny property taxes, [corporations] extract the state’s rich deposits of coal, timber, oil and gas. And their activities inevitably help sustain the striking paradox of a state with abundant mineral wealth and much property poverty.”

The Appalachian Land Ownership Survey

In 1978, the Appalachian Land Ownership Task Force undertook a thorough investigation of land ownership patterns in the region. Funded in part by the Appalachian Regional Commission, this group of paid researchers and volunteers collected and reviewed land deeds from 80 counties in Alabama, Kentucky, North Carolina, Tennessee, Virginia and West Virginia.

In 1981, the group released its findings in a multi-volume 1,800-page report. They found that 40 percent of the property and 70 percent of the mineral rights in Appalachian counties sampled were owned by corporations, and of the land owned by individuals, less than half was owned by “local individuals.”

The task force concluded that “these ownership patterns are a crucial underlying element in explaining patterns of inadequate local tax revenue and services, lack of economic development, loss of agricultural lands, lack of sufficient housing, the development of energy, and land use.”

Despite the significant findings of the report, the land ownership patterns had not changed significantly. In part because even the Appalachian Regional Commission distanced itself from the report. Reporting in April 1981 after the report’s release, the New York Times wrote, “A spokesman at the commission’s headquarters in Washington, [then] asked why the commission had done little to draw attention to it, called the study ‘controversial’ because portions of it contain “subjective judgments” and “some rhetoric.”

In his book “Unseen Ground: Appalachian Since 1945,” Ronald D. Eiler notes that the commission’s continued existence was under threat from the Reagan administration’s federal budget cuts, writing that “agency leaders abandoned the politically sensitive study to rally support for their own organization’s survival.”

Ethical Concerns

In 1995, Dr. David Rowe, a philosophy professor new research from the University of Virginia’s College at Wise explored the ethical implications of outside land ownership in Appalachia. He concluded that these large corporate landowners were able to access tax breaks that increased the political influence of corporate landowners, and decreased civic engagement in those communities. According to him, the “correlation between landowners and political participation” is still relevant.

With many of the land-owning coal companies now declaring bankruptcy, Rowe is hopeful that some of this land might finally be available to benefit the community. He is now chairing a committee for the Southern Appalachian Mountain Stewards, a coalfield community organization, that will re-examine the findings of his and other earlier studies.

Current Metrics

In December 2013, the West Virginia Center on Budget and Policy, together with the Appalachian Voices, released a comprehensive report detailing the state’s current land-ownership figures and updating the findings of both Miller and the Appalachian Land Ownership Task Force.

Using 2011 property data, the study revealed that the concentration of land ownership in West Virginia has actually declined over the past 30 years. While Miller’s study concluded that two dozen corporate landowners owned one-third of the state’s 12 million privately owned acres, the 2013 study showed that the top 25 private owners held just 17.6 percent of the state’s 12 million acres of private land. The authors concluded that this was “still a significant percentage but a dramatic decline in concentration of ownership.”

The researchers also identified a new type of corporate entity that did not exist during the previous studies—non- profit education organizations. The group has increased from 32 in 1995 to over 100 in 2013. They own over 50 percent of the county’s private land.”

The most recent available property records for West Virginia uphold the findings of the 2013 study. For example, Pocahontas Land Company, a subsidiary of Norfolk Southern, is still listed as owning more than 17,000 acres in the county, or roughly 25 percent of the privately owned land, with an average assessed property value of less than $30 per acre for 2016.

For Dowey Housh, founder and president of the Rural Appalachian Fund and League in Malden, W.Va., these large land-holding companies have their own personalities and policies, and each should be considered individually.

According to Housh, Pocahontas Land Company has cooperated with his organization — a nonprofit community group working to bring opportunities to southern West Virginia — even leasing them several properties for agricultural and recreational purposes.

But another large landowner, Western Pocahontas Properties, has been harder to work with. The company’s parcels of land that were once accessible to the public are now locked behind gates with “no trespassing” signs. For years, Housh says, “the land was used by the public. Especially hunters could go on it and hunt, and we had no problem in public land, and what we’ve done is start leasing these land to whoever can pay the fee that they charge.”

Case Study: Wyoming County, W.Va.

The 2013 West Virginia study identified Wyoming County as the state’s most corporately owned county. It is estimated that the top 10 landowners held 75.8 percent of the county’s private land, and “just two companies — Norfolk Southern and Pocahontas Forestland Company and Norfolk Southern — own more than 50 percent of the county’s privately held land.”

The most recent available property records for Wyoming County uphold the findings of the 2013 study. For example, Pocahontas Land Company, a subsidiary of Norfolk Southern, is still listed as owning more than 17,000 acres in the county, or roughly 25 percent of the privately owned land, with an average assessed property value of less than $30 per acre for 2016. For Dowey Housh, founder and president of the Rural Appalachian Fund and League in Malden, W.Va., these large land-holding companies have their own personalities and policies, and each should be considered individually.

According to Housh, Pocahontas Land Company has cooperated with his organization — a nonprofit community group working to bring opportunities to southern West Virginia — even leasing them several properties for agricultural and recreational purposes.

But another large landowner, Western Pocahontas Properties, has been harder to work with. The company’s parcels of land that were once accessible to the public are now locked behind gates with “no trespassing” signs. For years, Housh says, “the land was used by the public. Especially hunters could go on it and hunt, and we had no problem in public land, and what we’ve done is start leasing these land to whoever can pay the fee that they charge.”

Case Study: Wise County, Va.

While West Virginia has been thoroughly studied, it is not the only state in the region dealing with the impacts of having much of its privately owned land concentrated in the hands of a few. In Wise County, Va., a heavily mineralized in the southwestern portion of the state, roughly 41 percent of the land is owned by corporations, Carl Snodgrass, the county’s economic development director, told Appalachian Voices.

Continued on page 19
Not on My Land
Kentucky resident challenges coal company’s right to mine

By Tarence Ray

For weeks Phillip Johnson laid in bed and listened to them tear up his land. 

“Tell him to come see you, it was about the worst thing I ever experienced,” Phillip Johnson recounts. “Them stopping and tearing the rock up there, with an excavator, nothing you could do about it. And the dozer running every morning till one or two o’clock, while I’m sitting here trying to sleep. It did a lot of damage to me.”

This was during the spring of 2014, after Premier Elkhorn Coal Company began mining Johnson’s land without his consent. Phillip got the mining temporarily halted with the help of his attorney in June 2014, but before Premier Elkhorn blew a massive cut-through on one of his ridges. The company had been using dynamic to level the ridge in order to open up Phillip’s holler to the adjacent holler for easier access.

“There’s not many hollers this big that ain’t been tore up,” Phillip Johnson says. “It’s just you, the government and the coal company.”

Land ownership in Kentucky

Phillip Johnson and his siblings are legally represented by Mary Cromer of the Appalachian Citizens’ Law Center in Whitesburg, Ky., Joe Childers of London, Ky., and Walt Morris in Charlotteville, Va. According to them, the case is reminiscent of how coal companies used to use the broadform deed—a legal mechanism that severed underground mineral rights from surface rights—to legally justify strip mining on a landowner’s property. These deeds were written to grant the owner of the minerals the right to extract coal from one person that owns an interest, no matter how small that interest, in order to strip away that land—even if the rest of the owners-object. It’s this loophole that allows them to get around the broadform deed reformation, says Cromer.

An Uncertain Future

In the summer of 2014, Cromer, Childers and Morris were on a temporary halt on the mining on the Johnson property. U.S. District Judge Amul R. Thapar subsequently ruled that the Surface Mine Control and Reclamation Act that defers federal law to regulate surface mining in individual states passed in 1977, that a coal company has to get consent from all surface owners in order to mine. Despite the judge’s ruling, the state of Kentucky continued the permit on the Johnson’s land in September of 2014 under a subsection of the Surface Mine Control and Reclamation Act that defers to state property laws. “Kentucky has continued to permit under a different part of [SMCA], and is still continuing to permit based on the consent of just one surface owner, even if the other surface owners object,” says Cromer.

According to Cromer, after the 1987 Kentucky Supreme Court ruled this practice unconstitutional in 1987, but miles and miles of the state’s mountains had already been damaged.

Cromer states, “When asked about this practice, the Kentucky Energy and Environment Cabinet responded, ‘The cabinet is in compliance with all court orders and is addressing all of these issues in state and federal administrative actions.’ The cabinet declined to respond to further questions regarding their legal justification and the fact that they continue to issue permits under a different subsection of federal surface mine law despite Judge Thapar’s ruling. Premier Elkhorn could not be reached for comment.

Despite the missed permit, it’s unlikely that Premier Elkhorn will continue mining Phillip Johnson’s land any time soon. Last year, parent company YECO sold Premier Elkhorn to Caribbean Coal for virtually nothing, and the price of coal has dipped so low that, according to data from the U.S. Energy Information Administration, not a single mine in central Appalachia is presently operating at a profit. In the meantime, Cromer and Childers have filed a new lawsuit against the state agency’s decision to reissue the permit.

For his work, Phillip Johnson has been tore all to pieces.”

The Appalachian Voice 

February/March 2016
Farming and Fracking

How uncertain property rights affect agriculture in West Virginia

By Dave Walker

This year will be Steve Vortigern and his wife Sunshine’s tenth year of farming in Preston County, W.Va. On 41 acres, they grow more than 40 different varieties of organic vegetables and herbs, as well as a small number of fruit and grass-fed beef for local customers.

They face many of the same challenges that other beginning farmers face, such as knowing what to grow and how to sell their produce. “It won’t sustain our fourth, fifth, sixth year of farming that we figured a few things out, and we began to see the light at the end of the tunnel,” Vortigern says.

During those first years, they also faced the prospect of natural gas companies constructing hydraulic fracking wells on their neighbors’ properties. Just when they were questioning whether farming would be a viable long-term occupation or not, a group of Preston County landowners formed together in an effort to take control of their mineral rights, to a prospective natural gas company.

“Helping to get a better price per acre because they were able to offer several thousand acres instead of forty or one hundred acres,” he says.

Property ownership in the United States is often described as a bundle of rights. The owner can sell one right, like the right to minerals under the surface, while retaining the rights to the surface of the land. When property rights are severed like this, the property becomes known as a split estate.

In the beginning, the Vortigerns were unsure how long they would be able to continue farming. “At that time on our farm, we weren’t really sure how realistic the overall success of our farm was going to be,” he says. The Vortigerns faced many of the same challenges that other beginning farmers face, such as knowing what to grow and how to sell their produce. “It won’t sustain our fourth, fifth, sixth year of farming that we figured a few things out, and we began to see the light at the end of the tunnel,” Vortigern says.

But at the time, with the future viability of their farm unknown, the couple felt compelled to join their neighbors and recover what they spent on the land. Luckily, the natural gas company was only interested in leasing land in Preston County and not the Vortigerns’ farm. In the years since, Steve Vortigern says their farm revenues have outweighed what the natural gas company offered, but the other landowners in his area may not be so lucky. “We are still really worried that there will be fracking wells on our neighbors’ properties,” he says.

Divided Rights

The Vortigerns are fortunate in that they retain their mineral rights. Split estates are common in West Virginia, according to Sarah Darby of Vermont Law School and a former intern with West Virginia Food & Farm Coalition. Citing research from the West Virginia Surface Owners’ Rights Organization, Darby writes in her report that split estates occur on an estimated 49 percent of the properties in southern West Virginia, 30 to 40 percent in the northern part of the state, and only 40 percent in the northern panhandle.

These estimates hint at the complexity of split estate ownership in West Virginia. To understand exactly how much land has been severed from the mineral rights beneath would require examining property records at county courthouses. For a surface owner to locate the original deed where the split estate occurred often takes a great deal of time, and expert witness Vortigern and other groups often advise hiring an experienced property attorney.

In West Virginia, severed estates occur at different points in time, as different mineral/coal, oil and raw shale gas became profitable. The coal and oil booms at the end of the 19th century saw a huge upswing in the continued on next page

Focus on the Farm

For Steve Vortigern, education for farmers is extremely important to the growth of West Virginia’s local food system. “Over the past ten years, we’ve seen a lot of land that’s been taken out of the local food system and not necessarily in our area that are financially successful,” Vortigern says. “I think the general perception that there’s no money in farming but that’s not true. We have to educate farmers on how to make use of the resources and that there are a lot of opportunities.”

A smallholding on a split estate in Glade Creek. West Virginia farmers who own their mineral rights are often unable to sell their property to natural gas companies because they retain their mineral rights. Photo by Kelly Moore

SPLIT ESTATE RESOURCE GUIDE

How can you find out if you own your mineral rights?

For a West Virginia landowner to learn whether they also own their mineral rights can be tell the problematic: According to West Virginia University College of Law Professor Alice Peck, “The only way to know for sure, whether you own your mineral rights, is to go to the courthouse and look at the original deed. This work may require an attorney, who would be able to draw conclusions and offer advice to landowners.

‘I’ve come to realize that despite how common and prevalent mineral severance is in West Virginia, many landowners don’t know much about it,’ says Peck. ‘From a lawyer’s perspective, it’s a sad story.’

Would it be possible to buy back mineral rights?

Yes, but it is not common, Peck says. First, a surface owner would need to hire an attorney to discover who owns the mineral estate, which can be expensive. The landowner can then try to negotiate compensation with the mineral owner, which Peck says can be frustrating by the further splitting of mineral estates between different corporate entities or between different individuals.

In the recent case of Marcellus Shale, landowners with split estates can’t buy back the rights to the mineral estate but have sued other landowners for trespass.

Where can surface owners go from here?

There are a few options for pre-drilling mediation, and improved compensation that also reflects the reduced value that the property might one day be able to command. Towards that end, there is a need for more research into the broader implications splitting of mineral estates can have on farming.

According to Archer, the retroactive nature of West Virginia’s surface owner compensation laws have left many landowners without adequate compensation. “One of the things that I think is problematic about the way the system works is that it is an investment,” Vortigern says. “You wouldn’t have thought technology would change as much as it has. You couldn’t have predicted the landowners would get so much money, or that they would be able to draw conclusions and offer advice to landowners.

‘I’ve come to realize that despite how common and prevalent mineral severance is in West Virginia, many landowners don’t know much about it,’ says Peck. ‘From a lawyer’s perspective, it’s a sad story.’

Would it be possible to buy back mineral rights?

Yes, but it is not common, Peck says. First, a surface owner would need to hire an attorney to discover who owns the mineral estate, which can be expensive. The landowner can then try to negotiate compensation with the mineral owner, which Peck says can be frustrating by the further splitting of mineral estates between different corporate entities or between different individuals.

In the recent case of Marcellus Shale, landowners with split estates can’t buy back the rights to the mineral estate but have sued other landowners for trespass.

Where can surface owners go from here?

There are a few options for pre-drilling mediation, and improved compensation that also reflects the reduced value that the property might one day be able to command. Towards that end, there is a need for more research into the broader implications splitting of mineral estates can have on farming.

According to Archer, the retroactive nature of West Virginia’s surface owner compensation laws have left many landowners without adequate compensation. “One of the things that I think is problematic about the way the system works is that it is an investment,” Vortigern says. “You wouldn’t have thought technology would change as much as it has. You couldn’t have predicted the landowners would get so much money, or that they would be able to draw conclusions and offer advice to landowners.

Focus on the Farm

For Steve Vortigern, education for farmers is extremely important to the growth of West Virginia’s local food system. “Over the past ten years, we’ve seen a lot of land that’s been taken out of the local food system and not necessarily in our area that are financially successful,” Vortigern says. “I think the general perception that there’s no money in farming but that’s not true. We have to educate farmers on how to make use of the resources and that there are a lot of opportunities.”
A Tale of Two Families
Fracked-gas pipelines would threaten residents’ homes and dreams

By Cat McCurr

At the top of the Sinking Creek Mountain in western Virginia, where Craig, Gordon, and Rob Cottrill grew up, there sits a 50-acre parcel of land with views that no one but them wants to see. It’s the kind of place they never sawział the 50-acre parcel of land with views with others like such places. But when the Cottrills learned they’d be dealt with in order to build what they considered an economic initiative. "For instance, if [the corporation] knew that it’s a project that would be damaged or destroyed. It would also close a Separate parcel where the couple is planning to build a house where the couple would be able to employ 100 people. Since that summer, both families have joined together in order to protect their property and land very seriously. “You have to be honest about the concept of growing local food without the landowner’s permission to conduct surveys, even prior to seeking federal approval for a new pipeline. The law transcends on private property for profit,” he says. “It’s inconsistent with American beliefs. It’s incomprehensible to this.” The Cottrills refused to allow pipeline surveys on their land, and are now being sued by the company, along with about 150 other landowners in Nelson County alone who also refused access to the surveys. Some landowners, the Cottrills included, are fighting back, hiring attorneys to challenge the law’s constitutionality. The cases were unsuccessful in the lower courts and are now on appeal to the Supreme Court of Virginia, says Ben Luckett with the Appalachian Mountain Advocates, a nonprofit organization representing some of the plaintiffs.

Law against landowners

For Richard Cottrill, the most egregious aspect of the 2014 Virginia law that allows natural gas companies to access private property without the landowner’s permission to conduct surveys, even prior to seeking federal approval for a new pipeline, is the law’s provision that the future of Appalachia. Unlike the Averitts, the Hodges family was successful in the lower court. The company must find an alternate route that will not interfere with their future development in the way of natural gas or coal extraction... they work with us very closely,” says Lye.

The Impact on Appalachia

For more than a century, corporate land ownership has defined much of the region. While some in the region find ways to cooperate with these large companies, others feel they need to resist.

In an email, Dr. Ronald Elliott, a retired professor from the University of Kentucky, wrote that the concentration of corporate landowners in the region “continues to be a major issue facing communities, the landowners won. The company has appealed to the Virginia Supreme Court. Unlike the Averitts, the Hodges family was successful in the lower court. The company must find an alternate route that will not interfere with their future development in the way of natural gas or coal extraction... they work with us very closely,” says Lye.

The Impact on Appalachia

For more than a century, corporate land ownership has defined much of the region. While some in the region find ways to cooperate with these large companies, others feel they need to resist.

In an email, Dr. Ronald Elliott, a retired professor from the University of Kentucky, wrote that the concentration of corporate landowners in the region “continues to be a major issue facing communities, the landowners won. The company has appealed to the Virginia Supreme Court. Unlike the Averitts, the Hodges family was successful in the lower court. The company must find an alternate route that will not interfere with their future development in the way of natural gas or coal extraction... they work with us very closely,” says Lye.

The Impact on Appalachia

For more than a century, corporate land ownership has defined much of the region. While some in the region find ways to cooperate with these large companies, others feel they need to resist.

In an email, Dr. Ronald Elliott, a retired professor from the University of Kentucky, wrote that the concentration of corporate landowners in the region “continues to be a major issue facing communities, the landowners won. The company has appealed to the Virginia Supreme Court. Unlike the Averitts, the Hodges family was successful in the lower court. The company must find an alternate route that will not interfere with their future development in the way of natural gas or coal extraction... they work with us very closely,” says Lye.

The Impact on Appalachia

For more than a century, corporate land ownership has defined much of the region. While some in the region find ways to cooperate with these large companies, others feel they need to resist.

In an email, Dr. Ronald Elliott, a retired professor from the University of Kentucky, wrote that the concentration of corporate landowners in the region “continues to be a major issue facing communities, the landowners won. The company has appealed to the Virginia Supreme Court. Unlike the Averitts, the Hodges family was successful in the lower court. The company must find an alternate route that will not interfere with their future development in the way of natural gas or coal extraction... they work with us very closely,” says Lye.
FRACKING WASTEWATER LEADS TO BANKRUPTCY IN WEST VIRGINIA

By Eliza Lambude

In Fayette County, WV, residents speaking up against natural gas drilling are facing financial hardship.

The county council voted to table two waste injection permits following a controversy over the state’s coal ash—criticized the agency’s recommendations (see page 22).

Coal Use Falls in China, Rises in India

Premature Births Linked to Fracking

Scientists Review to Clear Legal Hurdle

Traditionally, states have relied on cleaning the first step of the entire process. However, new regulations have increased the cost of waste injection permits, which can lead to financial hardship for affected communities.

The argument put forth by the U.S. Environmental Protection Agency (EPA) while developing the Clear Water Act was that it was necessary to control the release of coal ash, a byproduct of power generation. However, new coal ash regulations are being contested by industries and communities who argue that they are unnecessary and costly.

Coal ash is a byproduct of coal combustion, consisting of solid residues that result from the burning of coal to produce electricity. It is a highly toxic and radioactive waste that poses serious environmental and health hazards if not properly managed.

The EPA is expected to release a final rule on the coal ash regulations this year. The rule will likely be challenged in court, as many communities and industries believe that it is overly burdensome and unnecessary.

In addition to the proposed coal ash regulations, the EPA is also considering new rules on greenhouse gas emissions from coal-fired power plants. These regulations are likely to face similar opposition from industry groups and coal-dependent communities.

The cost of complying with these new regulations will be significant for coal-dependent communities, and many worry that they will result in increased costs for consumers and job losses in the coal industry.

In conclusion, the proposed regulations on coal ash and greenhouse gas emissions from coal-fired power plants will have significant implications for the coal industry and communities that rely on it. The cost of compliance and the potential for job losses must be carefully considered, and alternative solutions should be explored to ensure that the needs of both communities and the environment are addressed.

Eliza Lambude, a journalist for The Appalachian Voice, has been covering the issue of waste injection permits for several years. Her work has highlighted the financial hardship faced by communities affected by these permits and the need for a more comprehensive approach to waste management.

Clean coal power plants are an essential component of the nation’s energy future. However, the industry faces significant challenges in transitioning to cleaner technologies. These challenges include the high costs of new technology, the need to address the impacts of climate change, and the potential for job losses in coal-dependent communities.

The federal government and states must work together to support the coal industry during this transition. This can include programs to help workers retrain, incentives for the development of new technologies, and investments in renewable energy projects.

Additionally, the coal industry must be open to new ideas and willing to make changes to adapt to the changing energy landscape. This will require a commitment from all stakeholders to work towards a sustainable future for all.

The challenge is to find a balance that allows for a smooth and fair transition while also protecting the environment and the health of those who live and work in coal-dependent communities.

By Brian Sewell

Clean Coal Power Plan Clears Legal Hurdle

The proposed regulations on coal ash and greenhouse gas emissions from coal-fired power plants will have significant implications for the coal industry and communities that rely on it. The cost of compliance and the potential for job losses must be carefully considered, and alternative solutions should be explored to ensure that the needs of both communities and the environment are addressed.

The coal industry faces significant challenges in transitioning to cleaner technologies. These challenges include the high costs of new technology, the need to address the impacts of climate change, and the potential for job losses in coal-dependent communities.

The federal government and states must work together to support the coal industry during this transition. This can include programs to help workers retrain, incentives for the development of new technologies, and investments in renewable energy projects.

Additionally, the coal industry must be open to new ideas and willing to make changes to adapt to the changing energy landscape. This will require a commitment from all stakeholders to work towards a sustainable future for all.

The challenge is to find a balance that allows for a smooth and fair transition while also protecting the environment and the health of those who live and work in coal-dependent communities.

By Brian Sewell

The federal government and states must work together to support the coal industry during this transition. This can include programs to help workers retrain, incentives for the development of new technologies, and investments in renewable energy projects.

Additionally, the coal industry must be open to new ideas and willing to make changes to adapt to the changing energy landscape. This will require a commitment from all stakeholders to work towards a sustainable future for all.

The challenge is to find a balance that allows for a smooth and fair transition while also protecting the environment and the health of those who live and work in coal-dependent communities.
Statewide and Unified Citizens Affected By Coal Ash Speak Out

In North Carolina, a remarkable coalition of citizens directly impacted by coal ash is preparing to push forward, one that will force Duke Energy to clean up decades of toxic coal ash without dumping it on any other communities.

The Alliance of Carolinians Together Against Coal Ash formed in late July, and since then, the group has held public meetings to call attention to the need for proper coal ash cleanup. ACT Against Coal Ash has also created a space in the formation of the Alliance and we continue to co-construct ACT and work with partners to include more affected communities.

ACT Against Coal Ash started off the new year by releasing a set of unify -ing principles that call on Duke Energy and North Carolina decision makers to put the people most impacted by coal ash in the forefront and work toward transparency and effective coal ash cleanup that keeps the ash on Duke’s property instead of moving it to new communities. The principles also indicate that ACT Against Coal Ash will be permanently supplied with safe drinking water and be compensated for lost property values and health care costs, along with other common sense demands.

In March, the N.C. Department of Environmental Quality will hold public hearings near coal ash sites across the state. Read more about the Alliance and find out how to join at the upcoming public hearings at ACTAgainstCoalAsh.org.

Appalachian Voices Opens Southwest Virginia Office

Appalachian Voice has opened an office in downtown Norton, Va. Our Economic Diversification Coordinator, Adam Wells and Central Appalachian Field Coordinator, Ramona Way and Mike Dodson are often out meeting with community members, so if you see them around town, be sure to drop in and say hello!

About Our Program Work

Sarah Registry of Appalachian Voice speaks of her work with the Landscape Architect, who was vice president at Inter - national Business, who is also a wild - mushrooming expert and a full-time wild - mushrooming researcher, is also a natural and cultural heritage steward.

Appalachian Voices is committed to protecting the land, air and water of central Appalachia and it’s unique natural and cultural heritage by working for clean energy, clean coal and strong mine reclamation policies.

Seizing Clean Power Opportunities in VA

The short General Assem - bly season in Virginia is min - or, and legislators are facing a slew of energy and environ - mental decisions. Appalachian Voices is working with allies at the General Assembly to advance bills that would make Virginia a national leader in clean energy. Matt began by telling committee members on the rulemaking process in March, the N.C. Department of Environmental Quality will hold public hearings near coal ash sites across the state. Read more about the Alliance and find out how to join at the upcoming public hearings at ACTAgainstCoalAsh.org.

Historic Clean Water Act Settlement in KY

Following a five-year legal battle, App - alachian Voices and our partners drafted a historic settlement with Frac - kland Creek, LLC, Kentucky Environmental and Cabinet in December. The settlement resolves four years of violating the Clean Water Act violations numbering in the thousands of surface water discharges in eastern Kentucky. The violations include duplicated water pollution monitoring reports, failure to report spills, and es - cections of pollution permit limits. The settlement includes $5 million fine - the highest ever entered by Kentucky against a company for environmental violations in the state. In total, the settlement is expected to have an additional $500,000. If the company fails to pay penalties, it may be fined up to $1 million more. In addition, if Frac - kland Creek, LLC, Kentucky Environmental and Cabinet.

Bringing Citizen Voices to the U.S. Senate

Armed with a wealth of science and quotes from residents directly impacted by mountaintop removal coal mining, our Director of Pro - grams, Maryann Matthews presented our pro - posed Stream Protection Rule during a U.S. Senate committee hearing in early February. The hearing, held by the Senate Committee on Environ - ment & Pub - lic Works was supposed to be about the relationship between the Stream Protection Rule and national waterways from surface mining pollu - tion and other environmental laws. But it devolved into ad hominem attacks by majority members on the rulemaking process and the director of the Office of Surface Mining and Enforcement, Joseph Pizziarchik.

Fortunately, Matt brought a much - needed local perspective to the hearing by sharing the personal experiences of people living near mountaintop removal mines in Appalachia — and supporting those narratives with the growing body of science surrounding the practice’s devastating health and environmental impacts.

By holding committee members, including Sen. Shelley Moore Capito of West Virginia, that any discus- sion be eventually turned to the practice’s devastating health and environmental impacts. Congressional Action Against Coal Ash press conference.

Gabrielle Zeiger

You could easily call Gabrielle Zeiger a jack of all trades. While she studies fungi and mushrooms as an ama - tomycologist, she is also a wild - mushrooming expert. Gabrielle’s love for the environment lies in her love of nature, fungi. When she first encountered the Appalachian Mountains on a motorcycle trip across the U.S., she fell absolutely in love with them.

For the second year in a row, Appalachian Voices has hosted two important roles in public - speaking events.

For the second year in a row, Appalachian Voices has hosted two important roles in public - speaking events.

Voices is working with allies at the General Assembly to advance bills that would make Virginia a national leader in clean energy. Matt began by telling committee members on the rulemaking process in March, the N.C. Department of Environmental Quality will hold public hearings near coal ash sites across the state. Read more about the Alliance and find out how to join at the upcoming public hearings at ACTAgainstCoalAsh.org.

Historic Clean Water Act Settlement in KY

Following a five-year legal battle, Appalachian Voices and our partners drafted a historic settlement with Frac - kland Creek, LLC, Kentucky Environmental and Cabinet in December. The settlement resolves four years of violating the Clean Water Act violations numbering in the thousands of surface water discharges in eastern Kentucky. The violations include duplicated water pollution monitoring reports, failure to report spills, and exceptions of pollution permit limits. The settlement includes $5 million fine - the highest ever entered by Kentucky against a company for environmental violations in the state. In total, the settlement is expected to have an additional $500,000. If the company fails to pay penalties, it may be fined up to $1 million more. In addition, if Frac - kland Creek, LLC, Kentucky Environmental and Cabinet.

Bringing Citizen Voices to the U.S. Senate

Armed with a wealth of science and quotes from residents directly impacted by mountaintop removal coal mining, our Director of Programs, Maryann Matthews presented our proposed Stream Protection Rule during a U.S. Senate committee hearing in early February. The hearing, held by the Senate Committee on Environment & Public Works was supposed to be about the relationship between the Stream Protection Rule and national waterways from surface mining pollution and other environmental laws. But it devolved into ad hominem attacks by majority members on the rulemaking process and the director of the Office of Surface Mining and Enforcement, Joseph Pizziarchik.

Fortunately, Matt brought a much-needed local perspective to the hearing by sharing the personal experiences of people living near mountaintop removal mines in Appalachia — and supporting those narratives with the growing body of science surrounding the practice’s devastating health and environmental impacts.

By holding committee members, including Sen. Shelley Moore Capito of West Virginia, that any discussion be eventually turned to the practice’s devastating health and environmental impacts. Congressional Action Against Coal Ash press conference.

Gabrielle Zeiger

You could easily call Gabrielle Zeiger a jack of all trades. While she studies fungi and mushrooms as an amateur mycologist, she is also a wild-mushrooming expert. Gabrielle’s love for the environment lies in her love of nature, fungi. When she first encountered the Appalachian Mountains on a motorcycle trip across the U.S., she fell absolutely in love with them.

For the second year in a row, Appalachian Voices has hosted two important roles in public-speaking events. Gabrielle Zeiger, a jack of all trades. While she studies fungi and mushrooms as an amateur mycologist, she is also a wild-mushrooming expert. Gabrielle’s love for the environment lies in her love of nature, fungi. When she first encountered the Appalachian Mountains on a motorcycle trip across the U.S., she fell absolutely in love with them. Fortunately, Matt brought a much-needed local perspective to the hearing by sharing the personal experiences of people living near mountaintop removal mines in Appalachia — and supporting those narratives with the growing body of science surrounding the practice’s devastating health and environmental impacts.

By holding committee members, including Sen. Shelley Moore Capito of West Virginia, that any discussion be eventually turned to the practice’s devastating health and environmental impacts. Congressional Action Against Coal Ash press conference.

Gabrielle Zeiger

You could easily call Gabrielle Zeiger a jack of all trades. While she studies fungi and mushrooms as an amateur mycologist, she is also a wild-mushrooming expert. Gabrielle’s love for the environment lies in her love of nature, fungi. When she first encountered the Appalachian Mountains on a motorcycle trip across the U.S., she fell absolutely in love with them. Fortunately, Matt brought a much-needed local perspective to the hearing by sharing the personal experiences of people living near mountaintop removal mines in Appalachia — and supporting those narratives with the growing body of science surrounding the practice’s devastating health and environmental impacts.

By holding committee members, including Sen. Shelley Moore Capito of West Virginia, that any discussion be eventually turned to the practice’s devastating health and environmental impacts. Congressional Action Against Coal Ash press conference.

Gabrielle Zeiger

You could easily call Gabrielle Zeiger a jack of all trades. While she studies fungi and mushrooms as an amateur mycologist, she is also a wild-mushrooming expert. Gabrielle’s love for the environment lies in her love of nature, fungi. When she first encountered the Appalachian Mountains on a motorcycle trip across the U.S., she fell absolutely in love with them. Fortunately, Matt brought a much-needed local perspective to the hearing by sharing the personal experiences of people living near mountaintop removal mines in Appalachia — and supporting those narratives with the growing body of science surrounding the practice’s devastating health and environmental impacts.

By holding committee members, including Sen. Shelley Moore Capito of West Virginia, that any discussion be eventually turned to the practice’s devastating health and environmental impacts. Congressional Action Against Coal Ash press conference.

Gabrielle Zeiger

You could easily call Gabrielle Zeiger a jack of all trades. While she studies fungi and mushrooms as an amateur mycologist, she is also a wild-mushrooming expert. Gabrielle’s love for the environment lies in her love of nature, fungi. When she first encountered the Appalachian Mountains on a motorcycle trip across the U.S., she fell absolutely in love with them.
Cathy Anderson captured this stunning image while on a hike with Lonnie Crotts at John’s Kitchen, an ancient cave overlooking the Western Rim of the Linville Gorge in North Carolina. Icicles beautifully frame the roof of the cave and large ice formations formed on the bottom. The hike was made particularly challenging due to more than a foot of snow, dropped by Winter Storm Jonas in late January 2016. View more of Cathy’s work at cathyandersonphotography.com

---

**Keep Appalachia’s finest environmental news source free for 20 more years!**

For two decades, *The Appalachian Voice* has delivered critical news about environmental issues that affect Appalachia — news that doesn’t often receive mainstream media coverage. Help us continue to bring you in-depth stories and the latest news about the air, land, water and communities of Appalachia — and receive a copy of *The Voice* delivered straight to your home.

[AppVoices.org/thevoice/subscribe](AppVoices.org/thevoice/subscribe)

---

**JOIN NOW!**

<table>
<thead>
<tr>
<th>Membership Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>$35</td>
</tr>
<tr>
<td>$50</td>
</tr>
<tr>
<td>$100</td>
</tr>
<tr>
<td>Make me a Mountain Protector monthly donor at $_________/month ($10 minimum)</td>
</tr>
</tbody>
</table>

Name _____________________________________________  
Address ___________________________________________  
City ______________________________________________  
State _______________ Zip _______________  
Phone ____________________________________________  
Email _____________________________________________  
☐ Please mail each issue of *The Appalachian Voice* (min. $25 donation)  
☐ Maximize my donation! Do not send *The Voice* / I prefer to read it online.  
MC/VISA # ________________________________________  
Expiration date ____________________  Security Code_______  
Signature __________________________________________

Mail this completed form to:  
171 Grand Blvd, Boone, NC 28607