Wildflower Wonders
Discover some of the region’s brilliant late-summer blooms

Appalachia’s Health Report
Residents contend with a rise in black lung disease and opioid abuse along with other environmental threats
A note from our team

For Appalachian Voices, summer means keeping our gardens watered, spending time in the woods and collecting a whirlwind of news events and projects. What we don’t touch all too easily is any worry about our own energy costs. But as we loan towards making clean energy affordable for all families, we’re hearing stories about the worry of how they’re going to pay their energy bills.

Since 2013, our Energy Savings App for Appalachian Voices has been helping consumers save money by reducing their energy usage while making their homes more comfortable.

We’re focusing on rural electric cooperatives, which serve a million members and 240,000 homes in rural areas of Tennessee and North Carolina. One out of every five of these households struggle to pay their bills for basic necessities, spending more than a third of their income just to keep their homes warm.

Electric co-ops already have access to funding and resources that could help their customers save money and live more comfortably, while also creating jobs and lowering carbon emissions. So far, only a handful of co-ops have taken advantage of the opportunity.

That can change if all co-op members make a commitment to do their part by reducing energy use.

For our communities.

Rory Millmol Energy Savings Program Manager

A note from our executive director

As Appalachian Voices continues to fight new investments in coal plants, we’re also working on some of the most effective, low-cost solution — energy efficiency.

Home energy-efficiency improvements can lift the burden of high utility bills, especially for low-income families. By keeping utility bills in check, people will be able to invest more of their money into health, education and other priorities.

Home energy-efficiency improvements can help lift the burden of high utility bills, especially for low-income families.

The groups are helping with the active coal restoration plan, which, according to the Western Virginia Division of Game and Inland Fisheries, is addressing some of the problems for development in Virginia by making land available to the Allegheny National Forest.

The Conservation Fund, an environmental nonprofit organization, focuses on preservation, along with 19 other Mellon-funded nonprofits, joined in the effort to secure this land, which was once owned by a coal mine holding company and has remained idle.

People are still awaiting post-mining reclamation.

"We hope to establish a healthy, self-sustaining elk herd that we can use to offer opportunities for hunting, while at the same time, offering a lot of opportunities for public enjoyment," says Randy Kelley, the elk’s project leader.

The West Virginia Division of Natural Resources is managing the elk zone and plans to release more Rocky Mountain elk to the area.

Randy Kelley explained that to be able to establish something bigger in elk, the agency’s Wildlife Resources Section is planning to conduct a herd appraisal for two key locations available for two other primary release areas. These sections will be part of the southern portion of the elk zone and will be protected and open to the public for recreational use.

In the same way that our summer gardens need constant care, we need to look after our homes and the environment that sustains us.

The Appalachian Voice Augus T/ September 2017

Environmental News From Around the Region

West Virginia Acquires Land for Newly Reintroduced Elk

By Rachel President

As of late July, 21 elk moved new public lands in southern West Virginia. This property is in the area in December 2016 as part of an effort to rebuild an elk population in the Mountain State.

Native to North America, elk began declining after Europeans arrived. Arrived. Among the last of the large mammals, by 1880 the Eastern elk was extirpated from the region as the Manassas elk are the two sub-species being reintroduced to lands once part of the Eastern elk’s historic range.

During 2015 and 2016, the agency required more than 46,000 acres that make up the Wildlife Management Area known as the elk zone. The land was acquired through trading and leasing separate tracts of land including 32,000 acres within Wupito Woods, a tract used in the Allegheny National Forest.

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U.S. Department of Justice Withdraws Funding Request for Kentucky Prison

By Rachel Pressley

In April 2017, the U.S. Department of Justice withdrew their funding request for a $444 million prison on a former mountaintop removal coal mining site in Burnsville, N.C., to house 3,000 prisoners. The DOJ cited a declining prison population over the past five years and asked that the Federal Bureau of Prisons, a subdivision of the DOJ, expand capacity at existing facilities instead.

In President Trump’s proposed budget, the Bureau of Prisons would direct $820 million toward retrofitting and expanding the capacity of a federal prison in western Illinois to accommodate an increasing number of prisoners. The DOJ cited a declining prison population over the past five years and asked that the Federal Bureau of Prisons, a subdivision of the DOJ, expand capacity at existing facilities instead.

Community Members Fight Proposed Asphalt Plant

Residents of Glendale Springs, N.C., are speaking out against a proposed asphalt plant that Appalachian Materials, LLC, intends to build in their town. According to the permit application, the plant would produce 300,000 tons of asphalt per year. The residents argue that the plant will have major impacts on the environment and the community.

New Plan Being Crafted for Two North Carolina National Forests

By Meredith Abercrombie

The U.S. Forest Service is in the process of revising the Forest Plan for the Pisgah and Nantahala National Forests, which would guide the goals for these two North Carolina national forests for the next 15 years. In the initial set of objectives released by the Forest Service, the three main themes were maintaining clean water, enhancing resiliency and connecting the people to the land.

Studies Show Harmful Air Pollution From Wildfires

Two studies published by the Georgia Institute of Technology in June suggest that air pollution from forest fires is much worse than originally identified by the U.S. Environmental Protection Agency. The studies show that the pollutants released from forest fires can have major impacts on the environment and public health.

Enviva Biomass Facility Meets Opposition

Enviros are speaking out against a proposed biomass energy facility that Enviva has planned to build in their town. According to the permit application, the facility would produce 370,000 tons of pellets per year. The residents argue that the facility will have major impacts on the environment and the community.
Two Interstate Pipelines Clear Regulatory Hurdles Despite Opposition

By Elizabeth E. Payne

This summer, the Federal Regula-
tory Energy Commission issued its
final environmental review for both
the Mountain Valley and the Atlantic
Coast pipelines.

These assessments are intended to
effectively evaluate the environmental
risk each project poses and ensure that
the projects’ proponents address any
issues identified. If the FERC
approves the health of the envi-
ronmental reviews for both projects,
the construction process for both
pipelines would begin.

The U.S. Forest Service is reviewing
its plans for the three national forests
that the two proposed pipelines
would cross. The agency is
upholding its draft decision for the
Jefferson National Forest on June 25,
which would allow the Mountain
Valley Pipeline to cross the forest if
approved. Public comments for this
draft plan closed on Aug. 7.

On July 21, the USFS issued its
draft decision for the George Wash-
ington and Jefferson national forests,
which would allow the At-
lantic Coast Pipeline to cut through
these three territories. Comments can be
submitted through Aug. 22.

Following a review of any
filed objections, the USFS
will decide whether to issue
a special use permit, pending
FERC approval of the project.

Before the companies behind ei-
ther pipeline can begin construction,
each state along the routes must issue
water permits required by Section 401
of the federal Clean Water Act.

In March, the West Virginia Dept.
of Environmental Protection issued
its Water Quality Certification for
the Mountain Valley Pipeline. Five
environmental groups — including
Appalachian Voices — have asked a federal
court to overturn this approval.

Public hearings for the certification
were held in late July and early August
for the Atlantic Coast Pipeline in West
Virginia, Virginia and North Carolina
in Virginia for the Mountain Valley
Pipeline. Written comments to the
WDQP were due by Aug. 4. North
Carolina will hold similar comments
in September. Comments must be
submitted to the state’s environmental
department by Aug. 19, and in Virginia,
they are due by Aug. 22.

“It’s definitely not a done-deal,
even though they’re presenting it
like it is. It falls upon us as citizens
to make people understand that
it’s not something that’s set in
stone,” Jorden Revels, a college
student and Appalachian Voices intern
from Floyd, says. “And what’s interesting about that
is that the decision to it is made by
people. If we choose not to live
here can seem like a very different ex-
perience for somebody when they’re
not used to it, so it’s something that
they need to keep in mind.”

Citizens opposed the Atlantic Coast Pipeline outside of Dominion Energy’s 2015 shareholder meeting. Three copies of Chesapeake Climate Action Network.

The writing Natural Bridge serves as the namesake of this Kentucky park and offers hikers a view of the Red River Gorge landscape, with distant sandstone cliffs towering over lush valleys.

The view from here overlooks the Red River Gorge landscape, with distant sandstone cliffs towering over lush valleys.

Hiking the Highlands: Traversing the Rock Formations at Kentucky’s Natural Bridge

By Joe Trinicy

On the outskirts of the Red River Gorge, hikers at Natural Bridge State Park walk among natural sandstone structures and climb small natural formations, all amid the shade of rhododendron and the shade of rhododendron and the shade of rhododendron. If you want the remoteness
of rugged Appalachian landscape you’re in luck at this jewel near Slade, Ky.

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Wildflower Wonders

By Mehdi Akhavanreza and Rachel Preoulx

Wildflowers are one of Appalachia’s most vibrant symbols of summer. As the season’s end nears, nature-lovers take time to appreciate nature’s bouquet before the crisp fall air transforms the land into crimson, colorful memories of what once was. Here we explore a few, unique flowers that bloom in late-summer along Appalachian trails, forests and riverside. While some have long been used as medicines, they can also be harmful to our medical and natural environments alike. Be aware of threatened and endangered flowers that should not be removed from their natural habitat. We hope you enjoy learning about these, and maybe find some blooming on your next adventure.

PassionFamily

The Gentian Family

The Gentian Family of flowering plants occurs on all continents except Antarctica. There are 87 botanical groupings and over 1,000 species known. The family evolved in the tropics and eventually spread to the North temperate regions. The species that grow in the eastern United States include the blue gentian, Appalachian gentian (Gentiana asclepiadea), the pink Appalachian rose gentian (Stabatcapsa), the purple swamp gentian (Gentiana acaulis), the Appalachian gentian (Gentiana villosa), the Appalachian violet gentian (Gentiana quinquefolia) and the blue bottle gentian (Gentiana clausa). Bloom time for these specific gentians range from the end of July through October. They are also rare, at risk or endangered in specific states due to habitat fragmentation, destruction and degradation.

Gentians in the eastern United States typically grow in habitats like elevated high-elevation oak–pine forests, grassy balds, meadows, streambanks and woodlands. Globally, they inhabit deserts, savannas, rainforests, temperate forests and the tundra. The plants have long been used as medicinal herbs. Currently, gentians are used in weight loss products, skin care products, perfumes and homeopathic treatments.

Bumblebees hold a special value to bottle gentians. This flower never opens, therefore insects must prey upon the petals in order to pollinate it. Bumblebees are the only insect strong enough to do so, seeking them vital to this species of wildflower. — R.P.

Ruth’s Golden Aster

Also known as: Ruth’s grass-leaved golden aster, Ruth’s silk-grass

Scientific name: Pityopsis radiata

Where and when to find it: Blooms late June to November in Polk County, Tenn., along the Hiwassee and Ocoee rivers.

Naturalist’s Notes: Dutchman’s button is another name for this species. It is the tallest lily species in eastern North America and is native to the Southern Appalachians. One of the most vibrant wildflowers of the Southeast, this lily resembles a Turkish tulip. The bright orange-red flower is speckled with darker red spots and the long flowing petals drop down. You may spot hummingbirds hovering around the flower, as they are often attracted to the bright color. It is the tallest lily species native to America, often reaching seven feet in height. — M.A.

Mountain Angelica

Also known as: Genus of the Apiaceae family

Scientific name: Scolopigos spp.

Where and when to find it: In the Turk’s cap lily refers to a genus of more than 100 species within the aster family. It is found across the country and blooms from July through September. While this wildflower is not exclusive to Appalachia, the bright spikes of yellow can be seen throughout the Southeast. In fact, the goldentop is the state flower of Kentucky. Naturalist’s Notes: Historically, the goldenrod flower has been used in traditional medicinal purposes — seldago derives from the Latin word solidus, meaning “to make whole.” Native Americans had multiple uses for the plant, like the Meshkwi, who made a lotion with the plant to helpURAL wounds, or the Zuni, who chewed on the flower to help sore throats. Other common uses include the treatment of scurvy, trachoma, infections, seasonal allergies, kidney stones and arthritis. It is often used in homeopathic remedies, especially with rhinitis, blooms at the same time and in the same area as goldenrod and causes seasonal allergies. — M.A.

Spreading Avens

Also known as: Appalachian avens, cliff avens

Scientific name: Geum raditulum

Where and when to find it: Spreading avens grows exclusively along the border of North Carolina and Tennessee. It blooms from late April to early June at a minimum elevation of 4,367 feet. These wildflowers flourish in sunny, open conditions. Flowers bloom late June through September, and their fruit forms a “spreading avens” shape. Naturalist’s Notes: Spreading avens flowers are a fluorescent yellow, while the leaves take on a kidney shape. There are only 11 populations of spreading avens known in the Southeast, making it as a federally endangered species. The biggest threats to these species are invasive plant management and disease from human traffic. To help protect this at-risk wildflower, stay on marked trails and be aware of where you tread during your excursions. — M.A.

Turk’s Cap Lily

Also known as: American tiger lily, turban lily, swamp lily, lily royal

Scientific name: Alpinia purpurata

Where and when to find it: In the Turk’s cap lily blooms from July through September and can be found as far north as New Hampshire and as far south as Alabama. The wildflowers prefer well-drained and sunny habitats, as well as wet meadows and thickets.

Naturalist’s Notes: The beauty of the turk’s cap lily is hard to miss. The blooms resemble those of the tropical red hibiscus flower in Turkey, which the flower resembles. The bright orange-red flower is speckled with darker red spots and the long flowing petals drop down. You may spot hummingbirds hovering around the flower, as they are often attracted to the bright color. It is the tallest lily species native to America, often reaching seven feet in height. — M.A.

Building Better Spotsponsored by

Hemphire Houses — Wails That Really Breathe

You’ll hear lots of people tell you that houses need to breathe. Unfortunately, they usually mean that it’s normal for a house to be stuffy. But that’s not true — spaces that breathe can help improve indoor air quality, which is the key to ensuring that your home is a healthy and comfortable place to live. A recent survey by the U.S. Environmental Protection Agency found that indoor air quality can be worse than outdoor air quality in some cases.

Bedrocks concrete — concrete that works

Concrete is a key component of the foundation of your home. It’s strong, durable and can withstand the test of time. But what about the concrete itself? Is it also strong and durable? That’s where Bedrocks concrete comes in.

Bedrocks concrete is a unique type of concrete that is designed to be used specifically in the construction of homes. It’s made from a combination of lightweight aggregate and cement, which makes it much lighter than traditional concrete. As a result, it’s much easier to handle and transport on site, which can save on construction costs. But that’s not all — Bedrocks concrete also has a unique texture that makes it look like natural stone. It’s also naturally thermally insulating, which means it can help keep your home cooler in the summer and warmer in the winter.

But that’s not all — Bedrocks concrete is also naturally decay-resistant, which means it can help protect your home from mold and mildew. It’s also naturally fire-resistant, which means it can help protect your home from fire damage. And because it’s made from recycled materials, it’s also environmentally friendly.

Bedrocks concrete is a unique and environmentally friendly solution for the construction of homes. It’s made from a combination of lightweight aggregate and cement, which makes it much lighter than traditional concrete. As a result, it’s much easier to handle and transport on site, which can save on construction costs. But that’s not all — Bedrocks concrete also has a unique texture that makes it look like natural stone. It’s also naturally thermally insulating, which means it can help keep your home cooler in the summer and warmer in the winter.

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Many of these plants are valued for women’s health. The root is widely used for women’s health, mental stimulation and long-term cognitive health.

Over-harvesting of the prized medicinal plants in Floyd. He sees the need to create a bright red berry by fall. Photo by Eliza Laubach. At left, Toll Weigand coordinates the Appalachian Harvest Herb Hub for the Appalachian Harvest hub. Photo by Eliza Laubach.

Appalachia’s forests are an endless reservoir of traditional medicinal plants. From the famous ginseng to lesser-known false unicorn, many of these plants are valued in today’s herbalism industry.

A traditional culture of harvesting plants like ginseng and ramps from the region’s expansive forest has long helped to sustain rural families. None, a movement called forest farming is emerging to grow these plants in private forestland to decrease strains on plant populations and strengthen the market for Appalachian botanicals.

One of the most commonly tended root plants like ginseng and black cohosh need five to 10 years to reach medicinal potency. Disease, poaching and competition from native and invasive plants complicate this long harvest cycle.

It takes a certain kind of person to grow herbs,” says Davis. “It’s not for everyone.” Forest farmers must be willing to take a long-term financial risk, unlike digging wild ginseng, which can sell for $500 a pound to buyers who will mark it up even more.

The forest farming field can be a mentor. Her most recent project involves serving as a partner on a regional, grant-funded coalition focused on providing resources, information and connection to land for small-scale farmers. The Appalachian Beginning Forest Farmers Coalition is funded by the U.S. Department of Agriculture’s National Institute of Food and Agriculture and the Appalachian Regional Commission. Through a three-year grant, created by Pennsylvania State University ethnobotanist and coalition partner Eric Burkhart. Even though nettle grows like a weed and black cohosh grows slow and finicky, over-harvesting and a disconnect between wild herb harvesters and consumers lends it a low price. Burkhart does not want to see black cohosh populations become scarce like ginseng, and says this could happen within 100 years if we do not start cultivating or better stewarding wild populations. Greater connectivity between industry and academia and the current culture of wild harvesting is needed, says Burkhart, who desires to interface with root diggers in the woods. Many wild harvesters do not know their harvesting practices may be unsustainable long-term, nor that they could sell for a higher price if they were harvesting sustainably.

The amount is the barier to small-scale farmers like Lorri Burra, who is already certified organic with the Forest Grown title. She says creating mutual trust among forest farmers is vital for this type of industry where product quality is an utmost importance.

Through that, she met Michelle Pridgen, who sells vegetables and preserves at a farmers market and also owns forest land. Mountain Rose Herbs bought black cohosh from Toll Weigand and some of the new crop from forest farmers last year, which were replanted with a bud from each plant’s root. This year the company is buying ginseng and black cohosh from Forest Grown Certified farmers at a much higher price than the industry standard.

Burkhart says the Appalachian Medicinal Herb Growers Coalition is working with the Appalachian Harvest Hub to transform it into a hub for forest-grown black cohosh. For the first time this fall, five processors including Mountain Rose Herbs, who is already certified organic with the Forest Grown title, will process a forest-grown black cohosh from the Appalachian Harvest Hub.

Cultivating Forest Medicinals, Creating Healthy Economy

By Eliza Laubach

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By Kevin Baker

Huntington, W.Va., a city located in Cabell County, has experienced a disturbing trend in the past few years. In 2015, Cabell County 911 received 944 total calls related to drug overdoses, compared to 786 calls in 2014. And in 2016, it received 1,476 calls—a 443 percent increase from 2014. The increase, according to the City of Huntington’s Mayor’s Office of Drug Control Policy, is due to the opioid epidemic.

People are overdosing on opioids—prescription drugs like codeine and fentanyl, often misused by heroin—older drugs like heroin—in cars, gas stations, illnesses, homes, department stores and fast food restaurants in higher numbers than ever before. As Cabell County and other communities like Greenbrier, N.C., attempt to adapt to an ever-worsening situation, they are finding traditional ways of dealing with drug addiction are not effective. “If you effectively put somebody and put them in jail, you are not really dealing with the dependants,” Capt. Rich Culler, head of the narcomine team in Huntington, W.Va., government department, says. “You just can’t arrest your way out of this.”

The opioid crisis in America has gotten progressively worse in recent years. According to the Centers for Disease Control and Prevention, sales of prescription opioids in the United States “nearly quadrupled from 1999 to 2010,” while the amount of pain medications reported showed no significant change. The CDC also reports that “more than 165,000 people age 15 and older died from opioid overdoses in 2016” and “the total number of opioid-related deaths per 100,000 residents from 1999–2013 was 13.9, compared to the national average of 13.8 per 100,000. In Donnell County, Va., the average death rate was 10.0 per 100,000 residents each year. According to Kim Miller, the director of corporate development with Prenetics Can- ter, the largest behavioral services provider in West Virginia, much of Appalachia’s drug problem stems from pharmaceutical companies flooding the market with opioids in a region where in-house primary care industries like coal and timber were king.”

By Kevin Baker

4th Annual Childhood Opioid Conference in Huntington, W.Va., drives this message home in a spread awareness of the opioid epidemic. One of their core beliefs is that we need to strike a balance between the public and the health professionals to stop the epidemic. (Photo courtesy of Stone Mountain Health Services.)

By Tom Higley

Huntington, W.Va., is known as the Last Coal City, and we are very proud of that. But煤ing the way is gone. There's a lot of rock and dust. Carson agrees. “Some young miners come in to this clinic in wheelchairs because they don't have enough strength to walk.” He says “we have miners at age 80 with six years of experience at the coal mine.”

The medical condition of progressive massive fibrosis, also known as black lung disease, affects the lung's ability to get oxygen to the body. The medical condition is caused by dust from coal that has been inhaled and deposited in the lungs. The lungs are deformed by the disease, and it leads to a chronic respiratory condition called chronic obstructive pulmonary disease (COPD). It is a highly preventable disease that can be treated with medical care, but it cannot be cured.

By Dan Reddick

“While an epidemic here in Southeast Virginia, in Eastern Ken- tucky, in Southern West Virginia,” says Ron Carson, director of the Black Lung Program at Virginia’s Stone Mountain Health Services, “are you going to shock them when they see the numbers.”

Carson was born with re- spects from the National Institute for Occupational Safety and Health to put hard numbers to this deadly epidemic, and he says they have been astounded by the number of cases. “Cancer prevention is the first step towards mass intervention against these cases, one that is hardly ever made in the 15 counties of the eastern coalfield.”

As a standalone nonprofit organization, Remote Area Medical erects a temporary, first-come, first-served clinic to provide free screenings and treatments, to hundreds of area residents over two days. People often spend the night in nearby parking areas to ensure a spot.

But these periodic clinics are not enough, Mary Vance, executive director of Mountain Hope Good Shepherd Clinic in Sevier County, says one of the most pressing needs is Hope Good Shepherd Clinic in Sevier County, Tenn., says one of the most pressing needs is.

Ms. Vance says that pharmaceutical companies do not go away.”

“Even though it’s complicated, if we don’t make the effort to have a public conversation about this, I don’t think we can solve it,” she says. “It’s not a side issue to the other—we all need healthcare.”


drug abuse and addiction connects them to treatment centers nationwide, Kentucky and West Virginia have been hit particularly hard. According to the Drug Enforcement Agency (DEA), the average death rate of opioid-related deaths per 100,000 residents from 1999–2013 was 13.9, compared to the national average of 13.8 per 100,000. In Donnell County, Va., the average death rate was 10.0 per 100,000 residents each year. According to Kim Miller, the director of corporate development with Prenetics Can- ter, the largest behavioral services provider in West Virginia, much of Appalachia’s drug problem stems from pharmaceutical companies flooding the market with opioids in a region where in-house primary care industries like coal and timber were king.”

By Dan Reddick

“There is an epidemic here in Southeast Virginia, in Eastern Ken- tucky, in Southern West Virginia,” says Ron Carson, director of the Black Lung Program at Virginia’s Stone Mountain Health Services, “are you going to shock them when they see the numbers.”

Carson was born with re- spects from the National Institute for Occupational Safety and Health to put hard numbers to this deadly epidemic, and he says they have been astounded by the number of cases. “Cancer prevention is the first step towards mass intervention against these cases, one that is hardly ever made in the 15 counties of the eastern coalfield.”

As a standalone nonprofit organization, Remote Area Medical erects a temporary, first-come, first-served clinic to provide free screenings and treatments, to hundreds of area residents over two days. People often spend the night in nearby parking areas to ensure a spot.

But these periodic clinics are not enough, Mary Vance, executive director of Mountain Hope Good Shepherd Clinic in Sevier County, says one of the most pressing needs is.
The amount of opioids prescribed per person was three times higher than in 1995.

From the Brink of Death

It’s become increasingly more common for medical professionals to prescribe opioids to all communities to carry naloxone—a lifesaving opioid overdose reversal drug that revives a victim within 60 seconds—to every call they answer. And for good reason, says Kenny Burner, West Virginia state coordinator for the Heroin Burner, a designation of the Drug Trafficing Area, a federally-funded initiative to address drug addiction and related crime in 11 regions of the United States, the region encompassing Huntington, West Virginia, located in Cabell County, the first department responsible to monitor the problem. According to Burner, "We don’t have 12 fires a day, but it would be over 100 a month, and sometimes over 120 overdoses a day," says Burner. But even though it saves lives, Burner says, "We’re not going to lose the war—we’re in an extremely controversial drug war in Huntington. He often has first responders on the scene where the user gets completely in a bad situation, essentially, this person in a bad state of affairs, where the user can’t help themselves. They’re in a very bad state of affairs; they’re in an extremely bad state of affairs, where they’re going to need help immediately. They’re going to need immediate medical treatment."

"We want to protect people," says Burner. "And when you see this many people dying, and you’re not having any effect, you’ve got to stop and look at what you’re doing."

Difficulty with Treatment

Both hurting and helping the addiction epidemic are drugs like buprenorphine—commonly under the brand name Suboxone—used to help people wean off of opioids.

Kim Miller with Prestera Center says that medication-assisted treatment is the gold standard for treating opioid dependence, as long as it’s strictly monitored and accompanied by counseling: "It curbs the cravings, it helps people stabilize their life," Burner says. "Ultimately, our goal is to help people get off of heroin as well. And it’s important to recognize that very slowly because people have developed psychological dependence as well as a physical dependence on heroin."

But according to August 2016 data, people who order patients to counseling while undergoing medication-assisted treatment and that prescriptions give only a week’s supply of the drug at a time. The Ohio Opioid Epidemic continued from previous page

Changing the Stigma

"I’m 60 years old," says Kenny Burner. "When I was a heroin addict, I was somebody in an alley in New York. Now, I’m a kid from West Virginia who went to school with. It doesn’t discriminate. “There’s a stigma to being a drug addict,” he continues. “But if you feel the worst of it, you’re looking at it as a problem. I don’t think it’s a personal failure. That’s the way we’re going to change our thinking about drug addiction. I’ve had to go to treatment or engage in some type of support services offered in that common.”

"The stigma associated with the epidemic was a big barrier to me when I was thinking of going to treatment. I’m not going to be the one who some of our first responders who are going to treatment every day, that’s how we’re going to save people’s lives and saving lives," says Burner. "They’re getting tired. It’s getting harder for me every day. And I can only speak in a very limited way because of the stigma. This problem is going to continue, and some other epidemic if we don’t start treating it as an epidemic, as a health care problem, we might not find solutions to this problem."
The Human Impact

Mining and Fracking in Appalachia

By Elizabeth F. Poyre

Central Appalachia has a wealth of mineral resources, but for decades, mining fossil fuels has come at a high price to the communities living near mountaintop removal coal mining and natural gas fracking sites.

While the majority of coal-mining counties in Appalachian lagged 24 years behind the national average, according to the 2018 U.S. Census Bureau, they were labeled a "high-opportunity region," then of West Virginia University. That’s why the school’s Program for Human Health and Economic Inequalities — such as levels of cancer and respiratory and heart disease, with a particular focus on identifying possible causes, such as pollution — a five-year study on the re- pense, so they can pit neighbor against neighbor," says Dr. Lois Bjorn-Bressen, whose family lives within 1.06 feet of a natural gas well pad in Southwest Pennsylvania.

More than two dozen well pads surround her home, so to retain ponds that hold frack liquid. A transmission line crosses her property, and a compressor sump house is on the cutting edge of new technologies and inspectors, it’s all back to normal. It’s all about perception. That’s what’s new.

In the mountains, the Affordable Care Act, also known as Obamacare, included amendments offered by Sen. Robert C. Byrd, D-W.Va., that make it easier for coal miners to get black lung benefits — and to ensure their survivors receive benefits after they die without having to prove their disease was caused by coal dust. The new law allowed covered coal-mine workers to prove that mining didn’t cause the disease, and that lawyers could shop around and find doctors who would say miners were dis- abled, but not because of black lung. "The Byrd Amendments shifted the burden of proof from the miner," Kulow says. "Coal miners could now prove that mining didn’t cause the disease. But lawyers could shop around and find doctors who would say miners were disabled, but not because of black lung."

Jackson & Kelly says miners disabled by black lung only have to prove they have the disease. Black lung advocates are concerned that the Byrd Amendments may cause widespread loss of claims and benefits, while Black Lung Benefits Reform Act of 1977, authorized up to $10 million for the Federal Black Lung Program, paid benefits. In a Pulitzer Prize- winning investigation in 2013, the Center for Public Integrity found that Jackson & Kelly handled the largest number of claims in the country are all funded by grants, with no one microtome, I would say that people have Black lung advocacy groups. It’s their job to improve your health and engage in healthy behaviors, try and do that." "There is a lot that is still unknown in terms of health impacts (from natu- ral gas drilling), but there are certainly enough indicators in the cumulative impacts of health impacts to be concerned about, that it doesn’t seem like there is a lot that is still unknown in terms of health impacts (from natural gas drilling), but there are certainly enough indicators in the cumulative impacts of health impacts to be concerned about, that it doesn’t seem like there’s going to be going forward with this industry," says Kriekie of the Appalachian Environmental Health Project. "We should be taking a pause and figuring out if we’re going to go forward with this industry."

Finally Take Notice

With all of this observed and documented impact, the federal Office of Surface Mining Reclamation and Enforcement should fund a study demonstrating a link between surface mining and increased risk for respiratory and heart disease, as recommended in its proposed rulemaking announcement the past year. The committee formed to tackle this project will sum- marize state and federal regulations intended to improve air quality and monitor the air and water in these communities living near the frack pads.

"The community’s completely divided, and it’s in a sense, they can pit neighbor against neighbor," says Dr. Lois Bjorn-Bressen, whose family lives within 1.06 feet of a natural gas well pad in Southwest Pennsylvania.

More than two dozen well pads surround her home, so to retain ponds that hold frack liquid. A transmission line crosses her property, and a compressor sump house is on the cutting edge of new technologies and inspectors, it’s all back to normal. It’s all about perception. That’s what’s new.

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After the February 2014 disaster at Duke Energy’s coal-fired Power Station in Eden, N.C., that resulted in 39,000 tons of coal ash spilled into the Dan River, state regulatory agency the North Carolina Department of Environment and Natural Resources (DENR) ordered Duke Energy to conduct an investigation to determine whether it would appeal the decision. Duke Energy provided access to the coal ash ponds for the study team, which received water samples from homes in Walnut Cove and Goldsboro, N.C., both located near coal ash ponds. But they hope to broaden the scope of their research and help more people.

“The findings should be seen as a call to action,” says Fry. “We're an independent, third-party research team, and now that we’ve got our hands on the data, we can provide a better understanding of what’s going on, it seems that the community has reacted very positively,” says George. “Even though some of the results aren’t necessarily what we were hoping for, at least they trust the results a little bit better.”

Because of concerns raised by community members, the team is now sampling water both from the well and from the faucet, to ensure that pipes are not polluting the water as they are in Flint, Mich. They are also taking soil samples since many residents were concerned about the safety of their gardens.

The team is beginning to look at the treatment methods used and what is being found in the water, suggests what — if anything — needs to be done to make the water safe, and answers any questions the residents might have.

“For many of these metals, the concentrations are so low that the homeowner is just not going to know whether he or she is present and at what levels,” says Fry. “That’s what we’re aiming to help with.”

For communities living near the state’s coal ash ponds, having a non-partisan group of scientists provide factual information is something that can provide peace of mind, but it’s only one piece of the complex health puzzle they’re dealing with. But for Hairston, even the impact of small amounts of metals need to be taken seriously. "If you get that stuff in your water, out of their garden food and breathing it through the air, over a 40-year period, that’s what it takes a toll on your health," he says.
Problems Persist for Rover and Mariner East 2 Pipelines During Construction

By Meredith Abercrombie

The Rover and the Mariner East 2 natural gas pipelines are facing multiple setbacks, as state governments halt construction because of permit violations and harm to surrounding ecosystems.

The Rover pipeline is set to run through West Virginia, Ohio and Michigan, while the Mariner East 2 would cross Pennsylvania, West Virginia and Ohio and from the West Virginia Department of Environmental Protection gave Energy Transfer Partners LP, the parent company of Energy Transfer Equity, a cease-and-desist order in response to reports of sediment runoff into nearby streams along the pipeline route, violating state water quality standards.

This is not the first time that the Rover Pipeline has faced issues. On July 7, the Bipartisan Hunger bill to accelerate the reclamation of abandoned coal mines while boosting economic development in mining areas through Congress despite objections from the National Mining Association.

On June 27, the House Natural Resources Committee passed the RECLAIM Act, an amendment to the N.C. Coal Ash Management Act passed last year requires Duke Energy to add a monetary contribution to the state’s energy grid with new energy technologies.

House Committee

Before the committee vote, the National Mining Association announced its opposition to the RECLAIM Act in a letter to lawmakers. The letter states that the House committee’s deliberations would not be able to prepare for an emergency properly.

NC Passes Controversial Solar and Wind Law

By KayLeigh McEneny

A new North Carolina law and executive order, which is being marketed by the governor’s office as a commitment to the state’s thriving solar and wind energy industries, is expected to provide an economic boost to the state’s clean energy sector.

The law also “opens the door for Duke Energy to attack net metering for rooftop solar customers,” Billie Kicklighter, owner of the Mountain Community Solar Cooperative in Goldsboro, told news source Agri-Pulse that the law will “impact the ratepayers and charge for electricity.” The new law “empowers the state’s largest solar power provider, Duke Energy, to make decisions about the future of solar energy,” Kicklighter said in a statement.

Repeal of EPA Methane Rule Denied in Court

Environmental groups celebrated a win in early July as the District of Columbia Circuit Court of Appeals upheld the president’s order to suspend the Obama-era methane rule, a new EPA report and repair methane leaks. This would reduce the amount of harmful climate gases being released into the atmosphere and reduce air pollution.

The court stated that the EPA still has a responsibility to reduce the regulation, but it does not agree with the agency’s proposed two-year delay of the rule.

Opposition to Potential Reactors in Tennessee

By Rachel Procell

The Tennessee Valley Authority is moving forward with its Nuclear Regulatory Commission to allow four small nuclear reactors to eventually be installed on its 1,200-acre Clinch River site in Blount County.

This type of nuclear power plant is an experimental structure that produces 10 to 30 megawatts of electric power, roughly one-third the power of modern commercial power plants.

At a required public meeting on May 15 in Oak Ridge, seven commissioners, including the chairman, expressed concern over the project’s safety and economic feasibility.

The Southern Alliance for Clean Energy and the Tennessee Environmental Council also filed a petition with the NRC, saying that the plant would be dangerous and costly. With a smaller emergency planning zone than is normally required, state and local government officials would not be able to prepare for an emergency properly.
Rich and Lucy Henighan, members of Appalachian Voices, voted to be in Hampton Roads far from the Big South Fork River area. “There are a lot of work opportunities over hanging caves, and the park has the largest arches east of the Mississippi River,” says Rich. Developing a sustainable economy is crucial for northeast Tennessee, according to the Henighans. “We encouraged the number of young people of the region to take on the responsibility of protecting the history, crafts, says Rich. “And the food!” Lucy chimed in. “If we could find more of those kinds of things and make them important,” she adds. “That’s when we started to reading Appalachian/Voices, Richi likes to read natural history articles and stories about places to hike or when he has never been. Lucy said that reading the newspaper is encouraging and give us a broader perspective.

The Henighans feel that Appalachian Voices is protected because it is unique. “There is something special about the mountains. The essence of it is hard to put in words,” says Rich. “If you love nature, you don’t need any other reason to protect it,” he says.
This detail from “Grasshopper Among the Mushrooms” by Linda Sipress Goodwin was captured in Cades Cove, Tenn., within the Great Smoky Mountains National Park. The image was a finalist in the Flora and Fauna category of the 14th Annual Appalachian Mountain Photography Competition. Submissions for the 15th annual competition are due by 5 p.m. on Nov. 17, 2017. Visit appmtnphotocomp.org for details.