



The Highlands Voice

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United States Supreme Court to Consider Atlantic Coast Pipeline

By John McFerrin

The United States Supreme Court has agreed to consider a case that may decide the fate of the Atlantic Coast Pipeline. Argument is expected in early 2020 with a decision expected by June, 2020.

Being accepted for decision by the United States Supreme Court is a substantial step forward for the Atlantic Coast Pipeline. There are 7,000-8,000 new cases filed in the Supreme Court each year. Review is currently granted in about 80 of those cases.

The Court will be reviewing a decision by the United States Court of Appeals for the Fourth Circuit. As proposed, the Pipeline would cross the Monongahela National Forest and the George Washington National Forest. That Court decided that the Forest Service's decisions to allow the crossings violated the National Forest Management Act and the National Environmental Policy Act.

In addition to stopping the National Forests crossings, the Fourth Circuit concluded that the Forest Service did not have the statutory authority pursuant to the Mineral Leasing Act to grant a pipeline right of way across the Appalachian National Scenic Trail.

Only the part of the Court of Appeals' decision about crossing the Appalachian Trail will be considered by the Supreme Court. Problems under the National Forest Management Act and the National Environmental Policy Act can be fixed. The Forest Service has to do a more diligent job of reviewing the proposal. If it makes that more diligent review before deciding whether or not to approve the pipeline crossings of the Forests, then it will have met the Court's requirements.

Crossing the Appalachian Trail is another matter. The Court of Appeals ruled that the Forest Service does not have the authority to allow a crossing. If the Forest service doesn't have the authority it doesn't have the authority. No amount of diligent review will fix that.

Now the United States Supreme Court will decide whether or not the Forest Service has the authority to allow a crossing of the Appalachian Trail.

For more information on the arguments before the Supreme Court, see the story on page 4.

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Thoughts from our President

By Larry Thomas

October, just like every other month, has been very busy at the Conservancy and within the environmental community. With the Conservancy it was another wonderful Annual Fall Review, which once again was packed full of activities, October 18-20 at Elk River Inn and Restaurant <https://elkriverwv.com/about-us/> in Slatyfork, WV.

Those of us who arrived Friday evening shared light refreshments and lively conversations.

Saturday mornings activity was a field trip to various pipeline impact locations led by Rick Webb and the Allegheny-Blue Ridge Alliance, Compliance Surveillance Initiative (CSI) team. The field trip began with a very informative pretrip briefing and then a tour of pipeline construction activities at several of the impact areas already completed. What an eye opener seeing the sites up close and personal.

Saturday afternoon and evening was filled with very informative presentations which included Restoration of Native Trout, Local Environmental Issues, When, Why, Where and How of Spruce Restoration, Going Solar, Woodcock Project-The Start of the Research Project and Management for Early Successional Habitat, The Clean Air Act and Climate Change Leave their Fingerprints on Forest Health in West Virginia and in the evening a discussion of the Environment and Energy by Delegate Evan Hansen. The Board and membership enthusiastically thanked the committee for putting together the great program. Everyone stated that they are already looking forward to next year's Fall Review.

Sunday, we started with the annual membership meeting during which we elected the four directors-at-large recommended by the nominating committee. I want to personally thank our newest director, Ellie Bell and the three incumbent directors for volunteering for those positions. We then moved into a very productive fall board meeting. Look for Board Highlights in this issue of the Voice.

Mother Nature took her good old time painting the fall canvas on the mountains. This last week the leaves are at their peak and putting on a fantastic show. The pesky Asian Ladybugs have made their debut and have been an incredible nuisance this last week as they are looking for warm places to survive the winter. I have been told that the Gypsy Moth population collapsed in the Eastern Panhandle when we had a very wet spring and they succumbed to viruses and fungus. Let's hope that is what is found throughout the entire state.

Land and Water Conservation Fund

Since 1964 the Land and Water Conservation Fund (LWCF) has helped West Virginia acquire and improve public land across the state. West Virginia has received nearly \$240 million dollars for over 500 recreation, access, and conservation projects in 54 of our 55 counties.

LWCF has supported "wild and wonderful" icons of West Virginia like the New River Gorge National River, Monongahela National Forest, Canaan Valley National Wildlife Refuge, and our state park system and it also has helped fund local projects that contribute to our everyday quality of life in the Mountain State.

As stated in the September 2019 Voice, Congress has permanently authorized the Fund. Permanent authorization of the Fund was a big step, but it is not the final step. Current law does not

require that the money that is available for the fund goes into the Fund. Congress still must make appropriations to the Fund and to date no such appropriation has been made. The future of this funding is critical for additional projects in our state and communities. Efforts are under way to convince congress of the importance of authorizing funding for Land and Water Conservation Fund. You can help by calling your representatives, asking them to support permanent full funding of Land and Water Conservation Fund. Find their contact information at https://www.senate.gov/general/contact_information/senators_cfm.cfm?Class=1 or <https://www.house.gov/representatives/find-your-representative>

ATV Use on Public Lands

During the September legislative interims, it was learned in the Senate Natural Resources Committee that Chairman Maynard intends to run bills allowing off-road recreation on public lands beyond what is available now.

Our National Forests provide invaluable ecological, recreational, and climate benefits. They offer habitat for thousands of wildlife species, provide opportunities for recreational activities such as camping, hiking, and fishing, supply clean drinking water to millions of Americans, and save taxpayers millions of dollars by limiting expensive roadbuilding on our cherished public lands. Our National Forests also serve as essential tools in the fight against climate change, acting as carbon sinks that store and sequester significant amounts of carbon emissions.

Despite the many benefits of maintaining intact roadless areas on public lands, and the overwhelming public support for protection of these areas, there is nationwide pressure to open public lands for such activities. WVHC has a long history of opposing such activities on public lands and we can only hope that the Forest Service will stick to their guns with the current rule that does not allow such activities in the National Forest. Recently, a rule that would have allowed ATVs on certain roads in Utah's five national parks including popular red rock country destinations such as Zion and Arches has been scrapped by the U.S. government one week before it was set to take effect.

Those are just two of the issues that WVHC is watching. Keep watching the Highlands Voice as we report on other issues in future issues.

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The West Virginia Highlands Conservancy web page is www.wvhighlands.org.

Citizens Dissatisfied with MXP Road Maintenance Promises

By Cindy Ellis

This little cautionary tale is not needed by those fighting the ACP and MVP. Nevertheless, it might bolster the arguments that they use about pipeline impacts by noting the woes of folks in western West Virginia, where the 165 mile- long, 36- inch MXP has been in operation since March, 2019. A number of roads damaged by construction remain unrepaired in 14 counties. I attended a meeting for airing concerns. Here's some of what happened:

On Tuesday, October 15, more than fifty people met in a local church, in northern Putnam County, to question WV DOT and DOH officials about roads extensively damaged by activities of MXP pipeline construction. This event was arranged for constituents by state senator Glenn Jeffries, who had also taken DOT/DOH staff on tour of the impacted areas.

Some staffers had also agreed to attend the meeting to answer questions. They were: Jimmy Wriston, Deputy Secretary, WV Department of Transportation, Travis Knighton, District 1 Engineer, WVDOH and Jason Foster, Chief Engineer, WVDOH.

The first question was, "When are our roads going to be fixed?" "It is difficult to say," was the response. "TC Energy [formerly TransCanada, formerly Columbia] says they are finished with their contractual obligations on this project. We have made an inspection/evaluation and we will be sending TC a reply to say they will not be released from their bond."

Another resident asked if the bond would be enough and was told the amount of the bond was \$4 million dollars.

When another question was, "Can the state do repairs while the bond is in effect?" the reply was, "We can do maintenance and bill them." But later there seemed to be some uncertainty if that could/would happen.

"Was the bond supposed to cover maintenance DURING the project?" "The company was charged with maintaining NORMAL road conditions."

Safety concerns were a big concern of those present, especially for children on school buses and for emergency vehicles. Several pointed out that it is now routine for regular residential traffic to veer sharply from potholed, crumbling, and washboarded

reply said that Mr. Wriston had said roads would be repaired by July 1, 2019.]

Senator Jeffries reminded that this is a FERC project; that is that the Federal Energy Regulatory Commission is the permitting agency for the MXP. And a DOT/DOH answer was, "We are trying to work through the process."

Senator Jeffries told the audience that there is a link on his website to the DOH process for seeking reimbursement for road damages to vehicles

One theme of statements was disappointment and anger at state officials and agencies for lack of information and preventive research on the MXP.

Petition? "Can we get up a delegation to go to Manchin and Capito?" asked one. Additionally, "Every individual should contact them!" someone said. "The state should litigate against TC!" added another.

Senator Jeffries also spoke of upcoming bills in the WV Legislature to deal with these pipelines/roads matters and that there is a feeling among lawmakers now to fix the roads before more "utilities" projects occur.

At the end of the meeting, Deputy Secretary

Wriston spoke at length, touching on WV roads maintenance in recent history and declaring that he had hired one person to deal with pipelines/roads matters. He mentioned a complaint process available on the DOT website.

Senator Jeffries thanked the highways officials and everyone for attending. The constituents gave Senator Jeffries a standing ovation.



sections of the roads, placing vehicles in the path of oncoming traffic.

Blacktop? Some noted that paving cannot proceed in colder weather, leaving us with damaged roads for another season.

There are rumors of an additional pipeline, in the same Right of Way as this one, said one resident. Others nodded.

"Who can we appeal to?" [One resident showed letters he had received in response to his queries to national Senators Capito and Manchin. One

The West Virginia Highlands Conservancy is a non-profit corporation which has been recognized as a tax exempt organization by the Internal Revenue Service. Its bylaws describe its purpose:

The purposes of the Conservancy shall be to promote, encourage, and work for the conservation—including both preservation and wise use—and appreciation of the natural resources of West Virginia and the Nation, and especially of the Highlands Region of West Virginia, for the cultural, social, educational, physical, health, spiritual, and economic benefit of present and future generations of West Virginians and Americans.

Can the Appalachian Trail Block a Natural Gas Pipeline?

By Noah Sachs

A note before you begin: Noah Sachs is a law professor. Law professors are like lawyers only more so. There is a constant danger that they will veer off into jargon, law talk, or worse. Fortunately, this story avoids those tendencies. It is long by Voice standards but if you read it all the way through you will really understand the case before the Supreme Court. So have at it.

The question of the trail's ownership looms large in a case now pending in the Supreme Court of the United States. The answer could determine the fate of natural gas megaprojects on the East Coast.

The stakes are high. The lawsuit over this section of the Appalachian Trail could determine the fate of some of the largest natural gas deposits in North America. In a landmark decision last December, the Fourth Circuit Court of Appeals in Richmond axed the project—for now. That court found that the entire Appalachian Trail from Georgia to Maine is part of the National Park System, blocking federal agencies from authorizing a pipeline crossing. The astonishing decision upended the U.S. natural gas industry and also jeopardizes other pipeline projects with proposed routes across the trail.

Both the Trump administration and Dominion petitioned the Supreme Court of the United States to review the Fourth Circuit decision; the Supreme Court has now agreed to hear the case. If the Fourth Circuit decision stands, the Atlantic Coast Pipeline will likely be doomed unless it gets a congressional exemption or Dominion chooses a costly new route. (Full disclosure: I'm on the board of an environmental group, Virginia Conservation Network, that has opposed the Atlantic Coast Pipeline, but VCN is not a party to any of the pipeline litigation.)

The Appalachian Trail, the longest continuous hiking-only route in the world, occupies a strange legal landscape. No one had an incentive to determine conclusively who controlled sections of the trail—until now. But who controls the trail affects everything from jobs and energy resources to water quality and climate change. The Appalachian Trail has long been a story of power, property, jurisdiction, and land rights, and the quandaries surrounding those issues now fuel this case. Is the Appalachian Trail part of the National Park System even when it runs through property that the Park Service doesn't own? If so, what does that mean for users of the trail? And how can U.S. energy policy support pipeline construction through public lands and at the same time allow a narrow strip of footpath to block the projects?

Federal law allows pipeline rights-of-way in national

forests, and 55 other oil and natural gas pipelines already cross under the Appalachian Trail at 34 separate locations (sometimes several pipelines cross at a single location). The Forest Service assumed it had authority over the pipeline and the tunneling under the Appalachian Trail since the proposed crossing is within the boundaries of the George Washington National Forest, land that the Forest Service purchased in 1918.

But Congress put the Park Service in charge of administering the entire Appalachian Trail, and agencies can't approve pipelines on Park Service lands. For decades, the Park Service has claimed the whole trail as one of the 419 official units of the National Park System, an authority that the Forest Service has acknowledged. The *Cowpasture* suit was filed in 2017 by the nonprofit Southern Environmental Law Center (SELC) to challenge the ACP's Forest Service approvals.

Who is really in charge of this stretch of the Appalachian Trail near the Three Ridges Overlook? No single entity owns the whole footpath. It meanders continuously for 2,100 miles through 14 states. It crosses 717 miles of national parks, 423 miles of state and private lands, and 1,006 miles of Forest Service lands. At the midpoint of the trail in Harpers Ferry, West Virginia, the trail runs right down city streets. At Bear Mountain, New York, it travels across the Hudson River on a bridge owned by the state of New York.

Born in the Progressive Era, the Appalachian Trail was assembled from dozens of smaller trails that had been operated by various hiking clubs. By 1937, the full route was complete, but there was no overarching federal protection until Congress passed the National Trails System Act in 1968,

which designated the Appalachian Trail as a "national scenic trail" and tasked the National Park Service with administering the path. With funding from Congress, the Park Service purchased 825 trail miles from private landowners in the early 1980s. But authority was still dispersed. Today, nearly half the trail runs through Forest Service lands.

Meanwhile, the Trump administration, which has never met a fossil fuel deposit it didn't want to exploit, quickly got behind the ACP. Reversing Obama administration policy in 2017, the Forest Service blessed a route through the Monongahela and George Washington National Forests that included tunneling 700 feet beneath the trail (the pipeline will be buried a few feet belowground along the rest of the route).

Even with tunneling, the ACP would wreck the wilderness

(More on the next page)



The Supremes prepare for their deliberations.

Can the Atlantic Coast Pipeline Cross the Appalachian Trail? (Continued from previous page)

experience of being on the trail. And it's not just one pipeline. Another project owned by a different developer, Mountain Valley Pipeline (MVP), is further along in construction, on a more southerly route than the ACP, and it also needs an Appalachian Trail crossing. Environmentalists have locked themselves to bulldozers and are slamming the MVP with lawsuits. The developers are fighting back, citing construction jobs and billions in economic activity. They also argue that cleaner-burning natural gas is needed to replace aging coal-fired power plants.

But the other lawsuits don't have the same national impact as the Appalachian Trail case. The Fourth Circuit was the first court to conclude that the entire Appalachian Trail is part of the National Park System, giving the trail a talismanic power to block energy projects. The Forest Service's ACP approval was bogus, the court said, because it lacked authority to give it, even within the George Washington National Forest. Judge Stephanie Thacker, writing for the court, concluded that the Forest Service had "abdicated its responsibility to preserve national forest resources." She invoked Dr. Seuss and quoted *The Lorax*: "We trust the United States Forest Service to 'speak for the trees, for the trees have no tongues.'"

This wasn't a case where two federal agencies were at loggerheads over jurisdiction. In fact, the National Park Service under President Trump acquiesced in the Forest Service permitting process for the pipeline. Instead, the court found that federal law doesn't allow *either* agency to approve a pipeline crossing under a trail in the National Park System. The ruling could set a precedent for other trails administered by the secretary of the interior, such as the Natchez Trace Scenic Trail from Mississippi to Tennessee, or the North Country Scenic Trail from New York to North Dakota.

Did the court get it right? A plain reading of the applicable statutes shows that it did. At the heart of this case is the 1920 Mineral Leasing Act, which governs energy development on public lands. That law allows pipeline rights-of-way on "all lands owned by the United States," except "lands in the National Park System." Is the Appalachian Trail a land "in the National Park System"? According to the Fourth Circuit, the answer is yes because Congress defined the National Park System, in a 1916 law, to include "any area of land and water administered" by the Park Service.

"Administered" is the key word because 50 years later, in the 1968 National Trails System Act, Congress gave administrative authority over the Appalachian Trail to the secretary of the interior, who then delegated it to the Park Service. Congress gave the U.S. Forest Service administrative authority over *other* trails (like the Pacific Crest Trail in California), but not the Appalachian Trail. Piecing together multiple statutes enacted decades apart, the Fourth Circuit concluded that the Park Service's administration of the Appalachian Trail makes the trail part of the National Park System. The court was saying Dominion should go to Capitol Hill, not the courts, if it wants an exemption.

In their respective Supreme Court petitions, the Trump administration and Dominion stressed the billions in economic gains from the pipeline. For the Trump administration, the *Cowpasture* decision throws a wrench into plans to fast-track pipelines and exploit natural gas resources to achieve U.S. energy "dominance." Arguing for the administration, Solicitor General Noel Francisco labeled the trail a mere "ribbon of land" in a national forest and asserted that the *Cowpasture* decision threatens "significant and

immediate adverse consequences" for energy infrastructure in the eastern United States.

Dominion, represented by serial Supreme Court litigator Paul Clement, argued that the decision effected "a massive unauthorized land transfer" from the Forest Service to the Park Service. It also "imperiled the Eastern Seaboard's ability to access inland oil and gas sources."

A final decision would likely come next spring. A lot depends on whether the conservatives on the court give as much weight to the National Trails System Act as the Fourth Circuit did. With a strong conception of property rights, the conservatives might say that the Park Service's authority to "administer" the trail does not give it the power to determine what happens on or underneath the trail on lands it doesn't own.

The justices might want clearer language from Congress. At least five justices may be open to the argument that Congress would not have made a dramatic change to laws governing pipeline rights-of-way through a seemingly unrelated law about scenic trails. As Dominion argued in a brief last year, quoting an opinion by the late Justice Antonin Scalia, Congress "does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes."

Did the Fourth Circuit really turn the Appalachian Trail into a "Great Wall" that blocks all energy transport from the Midwest to the East Coast, as many energy industry analysts have suggested? And what about those 55 pipelines that already cross under the trail? Maybe this is a case of environmentalists tolerating existing blemishes on the landscape while targeting their legal firepower on what seems new and scary.

A document released in June by Southern Environmental Law Center attorney Austin D.J. Gerken helps to clarify the stakes. Gerken conducted a land parcel analysis on every one of the 55 pipelines (at 34 crossing points). It shows that in each case, the pipelines crossed under the Appalachian Trail on state or private land, or the pipelines existed before the National Park Service acquired the land.

This is apparently the first time that the Forest Service has authorized a pipeline to cross the Appalachian Trail on federal property. If so, the Fourth Circuit engaged in a reasonable slap-back of a federal agency that exceeded its authority under the Mineral Leasing Act. According to Gerken, the *Cowpasture* decision doesn't preclude *all* pipeline crossings of the Appalachian Trail—in fact, he suggested alternate ACP crossing points on state or private land. This could take some of the heat off this case and make the Fourth Circuit decision appear more reasonable to the Supreme Court.

Noah Sachs is a professor at the University of Richmond School of Law. This is a shortened, and slightly updated, version of something he wrote for The American Prospect in August, 2019. Used with the permission of The American Prospect, "Can the Appalachian Trail Block a Natural Gas Pipeline," by Noah Sachs. © The American Prospect, Prospect.org, 2019. All rights reserved. To read the whole thing, go to <https://prospect.org/power/can-appalachian-trail-block-natural-gas-pipeline/>

Book News

Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction) Sixth Edition

Review by John McFerrin

The *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking* is a compilation of evidence outlining the risks and harms of fracking. It is a public, open-access document that is housed on the websites of Concerned Health Professionals of New York (www.concernedhealthny.org) and Physicians for Social Responsibility (www.psr.org).

While not nominally a book, at 361 pages it feels like one. It lacks a plot, character development, sex, suspense, and all of the other elements that make some books so riveting. What it lacks in plot, etc. it more than make up for in information. It is also surprisingly readable. Even if the title screams “snoozer”, it is clear and easy to read. While it is, by its very nature, dry in spots, it is much more readable and accessible to the general reader than it could have been.

It is also comprehensive. Here are the topics it covers:

- Air pollution
- Water contamination
- Inherent engineering problems that worsen with time
- Radioactive releases
- Occupational health and safety hazards
- Public health effects, measured directly
- Noise pollution, light pollution, and stress
- Earthquakes and seismic activity
- Abandoned and active wells as pathways for gas and fluid migration
- Flood risks
- Threats to agriculture, soil quality, and forests
- Threats to the climate system
- Threats from fracking infrastructure
 - Sand mining and processing
 - Pipelines and compressor stations
 - Gas storage
 - Liquefied natural gas (LNG) facilities
 - Gas-fired power plants
- Inaccurate jobs claims, increased crime rates, threats to property values and mortgages and local government burden
- Inflated estimates of oil and gas reserves and profitability
- Disclosure of serious risks to investors

The *Compendium* has a summary with two or three pages on each of these topics. A reader who does not want to tackle the entire thing can learn a lot from the summary. The rest is made up of more detailed discussions of the topics.

Many people have strong opinions on fracking. Bias is possible in any publication that addresses it. Fracking has been banned in New York; the *Compendium* contains some of the information that was available to inform that decision. It is undeniable that human beings have biases, both conscious and unconscious. In considering the bias of the *Compendium*, it is useful to consider both what is included and what is excluded.

So far as what is excluded, the *Compendium* says this:

While advocacy organizations have compiled many useful reports on the impacts of fracking, these, with few exceptions, do not appear in our *Compendium* unless they provide otherwise inaccessible data. We also excluded papers that focused purely on methodologies or instrumentation.

So far as what is included, the *Compendium* relies upon sources that have been published in peer review journals. Although there are some references to newspaper stories, the vast majority of the statements are supported with references to articles in peer reviewed journals. There are hundreds of footnotes. Anyone who is interested in the details of any topic can go the publications referred to. Academic writing being what it is, there is an excellent chance that the footnoted articles include some real snoozers. At the same time, their publication in academic journals assures that they were done by serious scholars.

Editor's Note

From time to time *The Highlands Voice* reports on published studies, summarizing key findings. This is impossible here; there is just too much. At 361 pages it is book length; in the topics it covers it is encyclopedic. There is no way to hit all the high points' there are too many high points.

To read the whole thing, go to Concerned Health Professionals of New York, & Physicians for Social Responsibility. (2019, June). *Compendium of scientific, medical, and media findings demonstrating risks and harms of fracking (unconventional gas and oil extraction)* (6th ed.). <http://concernedhealthny.org/compendium/>

The public radio show Living on Earth featured the study in a July program. To see a transcript of that program or listen to it, go to <https://www.loe.org/shows/segments.html?programID=19-P13-00029&segmentID=1>. The interview was the basis for a story which you can see at <https://www.pri.org/stories/2019-07-31/fracking-causes-environmental-damage-and-birth-defects-new-study-shows>.

Both the radio program and the story based upon it are mostly an interview with one of the study's principal authors. From it you can get the flavor of the study although not the detailed findings.

(More on the next page)

More about the Risks of Fracking (Continued from previous page)

Here are a few of the nuggets of information found in the *Compendium's* summary:

A new analysis shows that a 100 percent renewable energy system in the United States would reduce electricity costs.²⁶

This body of evidence indicates both potential and actual harms. Specifically the Physicians, Scientists, and Engineers (PSE) for Healthy Energy's statistical analysis of the scientific literature available from 2009 to 2015 demonstrates that:

- 69 percent of original research studies on water quality found potential for, or actual evidence of, fracking-associated water contamination,
- 87 percent of original research studies on air quality found significant air pollutant emissions, and
- 84 percent of original research studies on human health risks found signs of harm or indication of potential harm.³⁴

Earlier scientific predictions are now bolstered by extensive empirical data, confirming that the public health risks from unconventional gas and oil extraction are real, the range of adverse environmental impacts wide, and the negative economic consequences considerable. **Our examination of the peer-reviewed medical, public health, biological, earth sciences, and engineering literature uncovered no evidence that fracking can be practiced in a manner that does not threaten human health. (Emphasis in original)**

In the United States, more than two billion gallons of water and fracking fluids are injected daily under high pressure into the earth for the purpose of enabling oil and gas extraction via fracking or, after the fracking is finished, to flush the extracted wastewater down any of the more than 187,000 disposal wells across the country that accept oil and gas waste. All of that two billion daily gallons of fluid is toxic, and the wells that ferry it pass through our nation's groundwater aquifers on their way to the deep geological strata below, where the injection of fracking waste demonstrably raises the risk for earthquakes.

Much of the methane emitted from drilling and fracking activities and associated infrastructure originates not from accidental leaks but from purposeful losses that are inherent to the design of the machinery or to normal operating use and are, therefore, not possible to mitigate. (See footnotes 1147-1149.) Methane is vented into the atmosphere during routine maintenance on compressor stations and pipelines; to create evaporative cooling for LNG storage and transport; during the flowback period after a well is fracked; and as an emergency procedure to control pressures. Inactive, abandoned wells are also significant methane emitters. Methane leakage at the levels now being documented,

using multiple approaches in measurement and modeling, negates previously hypothesized benefits from burning methane instead of coal in most existing power plants.

Cases of drinking water sources contaminated by drilling and fracking activities, or by associated waste disposal, are proven. Contamination occurs through three confirmed pathways: spills; discharge of fracking waste into rivers and streams; and underground migration of chemicals, including gas, into drinking water wells. Methane and fracking-related contaminants can reach drinking water sources through cracks in well casings, through spaces between the casing and the wellbore, through naturally occurring fractures and fissures connecting shale layers with aquifers, and through abandoned wells. Methane migration into drinking water aquifers can change water chemistry in ways that mobilize metals or release hydrogen sulfide. (See footnote 248.)

Drilling and fracking operations are exempt from federal Occupational Safety and Health Administration (OSHA) standards designed to prevent catastrophic releases of toxic, flammable, or explosive chemicals in workplaces. They are also exempt from OSHA rules written for the construction industry designed to prevent falls and other accidents on the job. Although announced by the agency as forthcoming in 1983, federal safety regulations for the oil and gas industry have never materialized.^{66, 67} Instead, inspectors can only apply the "general duty clause" which is generally recognized as grossly inadequate for an industry with unique hazards and a fatality rate far above the national average. Fatality rate data for the oil and gas industry are limited, but available data in the seven years leading up to 2015 show fatality rates in oil and gas extraction that are four to seven times the national fatality rate. In 2017, the most recent year for which data are available, 81 oil and gas extraction workers died on the job, accounting for 72 percent of the fatal work injuries in the mining sector, which overall has a fatality rate nearly four times the national average.^{68, 69}

A variety of radioactive substances including radium, thorium, and uranium have been detected in fracking wastewater. A 2018 study in the Marcellus Shale region showed that extreme salinity, as well as the chemical composition of fracking fluid, interacts with the shale during the fracking process in ways that mobilize radium and make fracking wastewater radioactive. (See footnote 497.)

More detail on these and other topics is in the *Compendium*. For even more detail (and maybe more than you really wanted to know) there are always the articles which are in the footnotes.

CASRI THE CENTRAL APPALACHIAN SPRUCE RESTORATION INITIATIVE

The Central Appalachian Spruce Restoration Initiative 2018 Highlights

YEAR-END REVIEW

We are pleased to share highlights of the Central Appalachian Spruce Restoration Initiative!

CASRI is a diverse partnership of private, state, and federal organizations who share a common goal of restoring historic red spruce-northern hardwood ecosystems across the Central Appalachians.

CASRI envisions a functioning red spruce-northern hardwood forest ecosystem with the scale, connectivity, and maturity to support the natural communities dependent upon this ecosystem. To achieve this landscape scale restoration, CASRI works on both public and private lands, promoting the health of forested, riparian, and agricultural lands, as well the multitude of plant and animal species which make their home in the central Appalachian mountains.



Volunteers planted over 14,800 trees in two days at Sharp's Knob in 2018.



MAJOR HIGHLIGHTS

2018 proved to be yet another year of impressive accomplishments for CASRI:

- Over 550 acres of high-elevation lands placed on a trajectory to develop into functioning red spruce ecosystems.
- 52,870 red spruce seedlings and 69,210 native plants planted on high-priority conservation and restoration sites.
- 302 acres of red spruce were released.
- Seeds were collected from 24 different native species and will be used to propagate seedlings for planting in 2019 and 2020.
- Over 100 volunteers dedicated their time to restoring red spruce habitat and planted over 19,800 native plants.

To learn more about CASRI and view the complete 2018 annual report, visit: <http://www.restoredspruce.org/>

Board Highlights

By John McFerrin

The Board did the usual business, hearing largely unremarkable reports on our finances and membership. We also heard several updates on things we are involved in and made some decisions.

Frank Young reported the results of the process of the West Virginia Environmental Council's legislative priority setting. It had solicited ideas both from groups and individuals. Tops on the list from both organizations and individuals was water quality protection, followed by (in no particular order) public lands protection (including no logging in state parks), renewable energy, pipeline issues, coal issues, and several other issues. The Environmental Council will consider the responses and prepare a list of priorities, weighing the preferences of survey respondents, the likelihood that issues will progress in the Legislature, etc. The Environmental Council is also constrained by the need to spend energy opposing detrimental legislation. It is requesting proposals for a lobbyist for the 2020 session.

Cindy Rank reported on coal matters. The same stuff that has been going on is still going on; most of it has been in the *Voice*. We are trying to finish up some of the litigation, particularly the settlements in the Fola Coal mines in Nicholas and Clay Counties. She also talked of the money that is often available as a result of the settlements. Companies who have been determined to be in violation of the Clean Water Act must clean up their act and pay penalties. Often these financial settlements have been directed to the West Virginia Land Trust and the Sustainable Law Clinic at West Virginia University. Of late, much of the settlement money has been going to Appalachian Headwaters Group which supports reclamation, preferably on previously mined lands in the watersheds affected by the pollution caused by the mines in violation of the Clean Water Act.

In matters of outreach, there was a round of applause and huzzahs all around for the excellent job that Marilyn and Jackie had done in planning this Fall Review. They are already thinking about a Fall Review for next year. They would like to do it at a state park that offers both lodge and camping accommodations. They are considering a theme of Maintaining Healthy Water; this would include water legislation, human health, and wildlife habitat.

Cindy Ellis reported that we have distributed Hiking Guides to 130 libraries. We also decided to donate a new edition of the Hiking Guide to each of the colleges in West Virginia.

In highways, Hugh presented the map which appeared in the September issue of *The Highlands Voice*. It shows a possible route which splits Davis and Thomas. There is substantial local sentiment for avoiding this route since many see splitting Davis from Thomas as undesirable. If the highway is built, Hugh favors a more northerly route which avoids splitting Davis and Thomas and protects Blackwater Canyon.

In renewable energy, Larry reported that there had been a Public Service Commission hearing on a wind facility in Mineral County, near Mount Storm. He watched the hearing on his computer; it appears that it will be approved.

Frank reported on the work of the Futures Committee. In April, 2018, we had a facilitated meeting to discuss future directions of the organization. This Committee was charged with developing some ideas on how the organization should proceed.

It was the strong feeling of the Committee that we did not want to become a grant making organization. It is working on a proposal to hire a staff person. While the title of such a person would be decided later, it was the sense of the committee that it should be a Board directed person performing such tasks as outings, outreach, brochures, recruiting, and legislative alerts. The Committee anticipates having a proposal to include funding for such a person in the 2020 budget.

On matters of public lands, Kent Karriker talked about projects on the Monongahela National Forest that are in various stages of development: the Panther Ridge Wildlife Habitat Enhancement Project, the Big Rock Project, the Spruce Mountain Grouse Management Area, and the Greenbrier Southeast Project. We had previously filed objections to the Panther Ridge Wildlife Habitat Enhancement Project and Big Rock Project. The Forest Service has not responded to our objections. More time has passed than would be necessary for a rote, thank you for your input, go away kind of response. From this we infer that the Forest Service is taking the objections seriously and preparing a serious response.

On the Spruce Mountain Grouse Management Area, the Forest Service has incorporated some of our suggestions into plans for the project but there has been no formal decision.

The Forest Service is now doing scoping for the Greenbrier Southeast Project. This means that it is deciding what issues to consider in planning the project and is seeking the public's suggestions on what issues to consider. There is also a Beulah project and a Grassy Ridge project but there has not been much action.

Kent also noted that the Big Run Bog pump storage project is dormant. There are rumors that it may rear its ugly head but nothing concrete has happened.

The meeting was not, however, all about reports and updates. We also made some decisions.

Last year we had supported the Compliance Surveillance Initiative, a project of the Allegheny Blue Ridge Alliance (West Virginia Highlands Conservancy is a member). The Compliance Surveillance Initiative provides extensive mapping tools, aerial surveys, and other support for the citizen monitors it trains. It focuses on the Atlantic Coast Pipeline with some activities on the Mountain Valley Pipeline and the Mountaineer Express.

After some discussion, we decided that we would continue to financially support the Compliance Surveillance Initiative again this year.

We also made a decision about a new committee, one on climate change. Although many of the issues we deal with either affect climate policy or are in reaction to climate change, we do not have a committee to address this issue. After substantial discussion it became clear that the sense of the Board was that we needed such a committee.

According to the Bylaws, the President has the authority to create Committees and appoint members. Thereupon, Larry waved the magic wand which has been passed down from President to President since time immemorial and a Climate Change committee was created. He also appointed Perry Bryant as its chair.

A New Designation for the New River?

United States Senators Joe Manchin (D-WV) and Shelley Moore Capito (R-WV), have introduced the *New River Gorge National Park and Preserve Designation Act*—legislation that would change the New River Gorge's designation from the "New River Gorge National River" to the "New River Gorge National Park and Preserve."

The Senators' goal in proposing this change is to make the area more attractive to tourism. It assumes that if the area is labeled as a National Park people would believe that it offers more recreational opportunities.

Ms. Capito introduced a similar bill last year. It foundered because of concern about hunting. While hunting is allowed in a National Preserve, it would not be allowed in a National Park.

To address this concern, this new bill divides the property into two parts. Some 5-6,000 acres would become a National Park where no hunting would be allowed. The rest of the current 72,000 acre New River Gorge National River would be designated as a National Preserve where hunting would be allowed.

Such a proposed change sparked questions. To answer these questions, Senators Manchin and Capito, along with Representative Carol Miller, met with a standing room only crowd at the Canyon Rim Visitors Center Auditorium to answer questions. Here are some of the questions and answers:

Usage and Restrictions:

How will the designation change affect private boater access? Hunting access? Fishing access?

There will be no change to private boater and fishing access. Hunting access will be restricted in some areas. There was a lot of pushback against restricted hunting north of Nuttallburg. Maps are going to be reviewed.

How will this designation change affect current and future commercial outfitter usage?

No change. The state governs water usage, the bill is written to defer to the state.

Will boaters have to obtain permits? Will they have to go through a commercial company to gain access to the river? Will the New River become a lottery system for private permits?

No

Where will camping being allowed? Will it be allowed only in designated areas?

Yes. You'll be able to camp along the river.

What are the proposed trapping changes? How will animals be trapped?

Trapping is allowed.

Fees:

No fees. Park Service could always add fees in the future if the need is determined.

Infrastructure:

What funding will be provided to support NPS with increased maintenance costs, current backlog, new signage, staff to oversee projects and provide visitor programs?

Funding will be made through appropriations. An increase in appropriations will be based on visitorship. No one could give a

firm answer about accommodating infrastructure needs. National Park Service doesn't believe there will be issues accommodating the increased visitorship. They see a seamless transition to Park and Preserve.

Will there be any private land purchased under the new designation? *Private land will be incorporated*

The Senate Natural Resources and Energy committee would like to take this matter up before end of the year. Because it is early in the legislative process there are still opportunities to change details of the proposal as it moves along.



LeJay Graffious displays a Woodcock he has captured. It will be fitted with a little backpack with a transmitter so that researchers can monitor its activities. One of the goals is to map Woodcock migration patterns. The West Virginia Highlands Conservancy is one of several sponsors of the project.

Join Now !!!

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

Membership categories (circle one)

	Individual	Family	Org.
Senior	\$15		
Student	\$15		
Introductory	\$15		
Other	\$15		
Regular	\$25	\$35	\$50
Associate	\$50	\$75	\$100
Sustaining	\$100	\$150	\$200
Patron	\$250	\$500	\$500
Mountaineer	\$500	\$750	\$1000

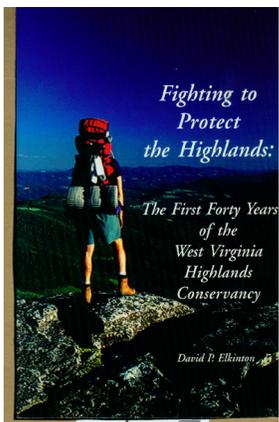
Mail to West Virginia Highlands Conservancy, P. O. Box 306, Charleston, WV 25321

West Virginia Highlands Conservancy
Working to Keep West Virginia Wild and Wonderful

You may also join on-line at www.wvhighlands.org

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518 pages, 6x9, color cover, published by Pocahontas Press

To order your copy for \$15.95, plus \$3.00 shipping, visit the Conservancy's website, wvhighlands.org, where payment is accepted by credit card and PayPal.

Or write: WVHC, PO Box 306, Charleston, WV 25321. Proceeds support the Conservancy's ongoing environmental projects.

SUCH A DEAL!

Book Premium With Membership

Although *Fighting to Protect the Highlands, the First 40 Years of the West Virginia Highlands Conservancy* normally sells for \$15.95 plus \$3.00 postage. We are offering it as a premium to new members. New members receive it free with membership.

Existing members may have one for \$10.00. Anyone who adds \$10 to the membership dues listed on the How to Join membership or on the renewal form will receive the history book. Just note on the membership form that you wish to take advantage of this offer.

Tell a Friend!

If you have a friend you would like to invite to join the West Virginia Highlands Conservancy just fill out this form and send it to West Virginia Highlands Conservancy, Box 306, Charleston, WV 25321.

Person you wish to refer: _____

Address: _____

Email _____

Your name: _____

Filling out the form, etc. is, of course, the old school way of doing things. If you prefer, just email the information to Dave Saville at WVHC50@gmail.com.

The way it works: Anyone you refer gets *The Highlands Voice* for six months. At the end of the six months, they get a letter asking if they want to join. If they join, we're happy. If not, then maybe next time.

Central Appalachian Spruce Restoration Initiative Has Successful Conference



Shawn Cochran, the new Forest Supervisor for the Monongahela National Forest addresses the group and shares his vision for CASRI and our work restoring the Red Spruce Ecosystem.

Over 50 people attended the 2-day workshop at Blackwater Falls State Park Lodge and the field trips. We are grateful to Amy Hessler, Geography Professor at WVU and Amy Hill, Forest Stewardship Coordinator with the US Forest Service's State and Private Forestry Program for their help with organizing, and presenting at, the workshop. Thanks to Matt Baker, Park Superintendent for providing us the meeting space. And thanks to The Nature Conservancy's Katy Barlow, the Highlands Conservancy's Dave Saville, and Forest Service AmeriCorps's Hannah Wroton for their work organizing the event.



John Perez, Biologist at the Shenandoah National Park, and the New River Gorge National River, shared his experiences with the Hemlock Woolly Adelgid, its spread, effects, and treatment



Ben Smith, Research Scientist with the Forest Restoration Alliance, talked to us about their efforts to find resistance in the hemlock trees to the effects of the Adelgids.

APRIL

By Cindy Rank

The word “April” brings to mind visions of a season of hope and transformation - awakening and new growth – increased light nudging the sleeping earth to rise up and face the new year and what awaits.

‘April’ Pierson-Keating embodied all of that – and more.

It was as if her naming foretold her life’s work for her 52 short years on earth.

She was a challenge to the sleeping and unaware.... A conscience to those who might want to ignore uncomfortable realities.... A warrior sister with a twinkle in her eye.

April fanned the flames of enthusiasm in those already involved in protecting the earth and she lit more than a few new flames in folks along the way.

Mentor to appreciative students during her work at WV Wesleyan College; April was also known, loved and admired by oh so many more these past 10 years as her environmental awareness and activism reached beyond Wesleyan.

Known mostly for her concern about water and clean energy, her presence was felt at home in Upshur County WV and throughout the state and region.

Disruption of people’s lives as gas pipelines pushed through their property, pipeline impacts of erosion, stream degradation, and the additional drilling and compressor stations and cracker plants all caught her attention.

She seemed to be everywhere – active with state wide environmental organizations and regional coalitions dealing with the unjust and polluting aspects of the gas industry, she could just as easily be seen holding events or speaking about local water concerns at city council and county commission meetings.

When her unrelenting cancer finally silenced her on September 28, 2019 - only days after she attended a National Sierra Club meeting in San Francisco, dozens upon dozens of tributes flooded websites and email listserves from individuals whose lives had been touched and organizations that had benefitted from her activism and energies.



April Dawn Pierson-Keating, age 52, of Buckhannon, WV, died Saturday, September 28, 2019 at the United Hospital Center in Bridgeport, WV. She was born April 27, 1967, in Charleston, WV, a daughter of the late Derek and Iris White Bell.

She is survived by her husband, Bernard Keating of Buckhannon; two sons, Pierson Keating of North Hollywood, CA and Thomas Keating of Buckhannon; one daughter, Laura Keating of Boston, MA; four sisters, Liz Bell of MI, Terry Bell of Ypsilanti, MI, Laura Pierson of Chicago, IL and Karin Pierson of Traverse City, MI and a companion, Kevin Campbell of Adrian, WV.

Mrs. Pierson-Keating is the founder of the Mountain Lakes Preservation Alliance, the Buckhannon Riverfest and a founding member of POWHR (Preserve Our Water Heritage and Rights). She was a board member of the Buckhannon River Watershed Association, a board member of ICARE which is a cancer research group, a board member of the WV Environmental Council, a member of the Sierra Club, the WV Highlands Conservancy and the Ohio Valley Environmental Coalition. She was recipient of several environmental and public service awards.

On the more local scene, her obituary included comments by Buckhannon, WV Mayor McCauley who stated in his City’s BEST Award proclamation in May 2019, “Mrs. Keating is a supreme protector of our environment. She is a lobbyist for clean water at both our state & federal governments, a participant in Buckhannon’s Community Unity & Kindness Day, the Equality march, the Science march, and other awareness activities. April is a fervent advocate for clean energy adoption and acceleration, a charter member of Create Buckhannon and a member of Southern Upshur Business Association. April Keating has helped us all in our Buckhannon-Upshur community to be happier and healthier in many ways”.

Comments by Cindy Ellis of the WV Highlands Conservancy are reminiscent of many from the environmental community: “April Pierson-Keating has been characterized in many tributes as ‘fierce’. I remember her that way too. But her ferocity was tempered by a deep zest for life that was remarkable too. She was moreover, even in the depths of a terminal disease, indefatigable. When we and our allies arranged events focusing on Water and Wellness, April was always there. When conference calls paused with the question, “Who could do that?” April reliably responded, and even summoned up the time and energy to do the tasks in question. In word or in speech, she was a powerful advocate for the things that matter. Perhaps April’s biggest accomplishment may remain her ability to inspire others to try to do at least some of the things that she did.”

West Virginia Environmental Council

P.O. Box 1107, Charleston WV 25324

www.wvecouncil.org phone: 304-414-0143

Request for Proposals for Legislative lobbyists:

The WV Environmental Council (WVEC) requests proposals to fill a team of two or more persons to perform full time legislative lobbying during the 2020 regular Legislative Session, which runs from January 8, 2020 through March 7, 2020.

Proposals should include: contact information, relevant experience, and monetary expectations- subject to experience, negotiation of duties and time commitments. Please indicate whether or not you would be interested or willing to commit to following environmental issues with state and federal agencies year around, including during interim Legislative Sessions that follow the regular session.

In addition to daily lobbying activities and bill tracking, lobbyists are required to write articles for our **GREEN** weekly newsletter to provide updates to WVEC members. Lobbyists are also expected to meet as requested with the WVEC Government Affairs Committee, including participation in a post-session assessment of the lobby team's performance.

Lobbyists are expected to work effectively in a team environment and communicate regularly with member groups regarding how activists from the member groups can be involved in lobbying efforts. They are also required to participate in and assist with the 2020 E-Day lobby day on January 28, 2020 at the Capitol.

Lobbyists are expected to reside in the Charleston WV area during the Regular Session.

In your proposal, please address the following questions:

- 1- How would you facilitate the use of WVEC member groups and other supporters in assisting our lobbying efforts?
- 2- How would you collaborate with other lobbying groups, such as teachers, social workers, organized labor, children's issue advocates, health issue advocates, etc. into a coalition, as appropriate, to further enable WVEC to reach its environmental policy goals?
- 3-What skills and qualifications do you possess that would make you an effective member of the WVEC lobby team?

All Proposals are due no later than **November 17, 2019**. Please e-mail your proposal and direct any questions to WVEC Legislative Coordinator Frank Young at fyoung@wvecouncil.org.

Hard copies of the proposal should be mailed by the deadline to:

WV Environmental Council
P.O. Box 1007
Charleston WV 25324



Board Members Elected

The main item of business for the Annual Meeting of the West Virginia Highlands Conservancy, held on October 20, 2019, was the election of Board members. Three of the previous Board members George Hack, Rick Webb, and Hugh Roger were re-elected to two year terms.

We did, however, elect a brand new Board member: Ellie Bell. She lives at Mace, near the site of the meeting. She is currently working on a Masters degree in environmental education at West Virginia University. She is currently most concerned about the proposed National Institute for Occupational Safety and Health (NIOSH) facility that it could use for studies and research on mine explosions, mine seals, mine rescue, ventilation, diesel exhaust, new health and safety technologies, ground control, and fire suppression. NIOSH would like to build it on 461 acres in Randolph and Pocahontas Counties near Mace.

World now one character short

Longtime Voice Editor Bill Reed Passes Away

Bill Reed, the gentle, kind, irascible, uncompromising curmudgeon who served as editor of *The Highlands Voice* from 1997 until 2002 (second longest tenure in *Voice* history) died on September 26, 2019, in Viola, Wisconsin. He was 93.

Bill was born and raised in Connecticut in a family with three older siblings, and attended public schools there. After high school he enlisted in the Navy and served in World War II. He graduated from Rutgers University in 1952 and in later years did graduate work at the University of South Carolina and Virginia Tech.

Most of his life he worked in various positions in education. His interests were hiking, camping, the natural world, and listening to music.

For twenty seven years he lived in a self-constructed home in the wilds of Raleigh County (.7 miles from the end of the hard road, with part of that last stretch doubling as the creek bed), growing his own food, chopping his own wood, and trying to have as little impact upon the land as he could manage. He had a couple of human neighbors and an abundance of assorted furred and feathered neighbors.

For some of this time, he worked as an environmental activist and served as the editor of *The Highlands Voice* for five years.

Most West Virginia Highlands Conservancy members will remember him as *Voice* editor. What many may not know is that, so far as production was concerned, he was the last of a breed. The *Voice* is now edited using desktop publishing software, the final product zipped off by email to the printer or for web posting. Bill (and those before him) did it the old fashioned way. He would lay out the *Voice* on *Voice* page size pieces of cardboard. He would print out the stories, snip them to fit, and paste them on the cardboard

sheets. When it was all finished, he would drive the finished product to the printer. Visitors to his home would find physical “paste up” galley sheets in preparation for publication of *The Highlands Voice* seemingly anywhere there was a flat surface (tables, beds, even on a floor in one room).

Bill would describe himself as a “revolutionary” although not in any mean or violent way. He was just agitated by what he perceived as an unfair balance of economic and political power in the larger world around us. And he saw that unfair balance of power manifested, among other ways, in excessive and unnecessary assaults upon the natural world and its life support system we call the environment. To fix that would take a revolution; whether the revolution was spiritual, economic, and political or something else he never did say.

When Bill was living in Raleigh County, his approach to “land management” was always one of benign neglect. He cut what trees he needs for firewood; he kept clear enough ground for his home and garden. The rest he wanted to leave alone, allowing it to eventually reach the condition it was in two hundred years ago.

Bill took seriously his belief about the importance of living lightly on the Earth. He always drove a three cylinder Geo Metro (42 MPG). Bill was a big guy; it was always a sight to see him arrive at Board meetings and unfold himself out of that tiny car.

He leaves behind two daughters and their spouses—Susan Reed and Peter Schmidt and Kathy and Alan Andrews, as well as a granddaughter, Victoria Andrews.

He left instructions that his remains were to be donated to science.

The project of giving a Hiking Guide to all the public libraries continues:



Cindy Ellis sharing our donation to Megan Tarbett of the Putnam County Library.



Veteran WVHC member Lois Ludwig handing off to Britany Addis of Cross Lanes Public Library. [Lois was also a contributor to the 9th edition guide.]

Food for Winter

In the morning
of a late summer day,
our father
would open the door
and say,
“Smell the beebread.”
And we would inhale deeply
of the heavy scent,
It had not been there
yesterday.
Magic,
Later, in the afternoon,
we would walk
over to the hive
facing east
in the shelter
of the big sugar maple,
And we would watch
the bees arriving
with loaded bread baskets.
And we would watch
the bees leaving
with baskets empty,
hurrying,
getting instructions
on where to find the goldenrod bread
to go with
their stashes
of golden honey.

-Marion Harless
West Virginia

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A Tour of the Atlantic Coast Pipeline

The major field trip of the Fall Review was the tour of a small part of the route of the Atlantic Coast Pipeline, led by Rick Webb and a team from the Compliance Surveillance Initiative. After an introductory program at the Linwood Public Library, our caravan of seven vehicles made three stops, seeing what we could see from the public road of where pipe had been laid. We didn't go on the pipeline route itself. Even had it not been trespassing, the route is so steep that walking up it would have been challenging.

Construction of the ACP has stalled due to successful legal challenge to flawed permits. There has been no construction since December 2018 - *except for excavation, pipe installation, and other construction activity described by Dominion as "stabilization."* So far, West Virginia has had 18 miles of tree felling, 28 miles of earth disturbance, and 21 miles of pipe installation.

This tour focused on the Upper Elk watershed, where about 5 miles of pipe have been installed, including one stream crossing. If Dominion is able to proceed, construction of the ACP will enter a new phase of environmental risk as the pipeline corridor crosses

- hydrologically connected karst
- the steep and rugged terrain of the Allegheny Front

The route of the ACP first encounters significant karst in upper Elk River watershed, a 92 square mile area that is entirely underlain and interconnected by karst groundwater flow systems. The risk to karst groundwater in this area is compounded by the presence of the highly erodible and slip-prone soils and rocks of the Mauch Chunk formation.

The currently planned ACP route will cross the Allegheny Front area along the divide between Slaty Fork of the Elk River and Clover Creek of the Greenbrier River. If construction ever reaches the Clover Creek watershed it faces more high risk construction due to

- long steep slopes
- high-excavation requirements
- highly erodible, slip-prone soil
- interconnected karst groundwater
- sensitive aquatic ecosystem

At the bottom of the slopes the pipeline will cross sinkholes and other karst features. Dye tracing has shown extensive connections between multiple sinking points and downstream springs. The Clover Creek watershed supports multiple sensitive aquatic species, including endemic cave-dwelling invertebrate species.

If you didn't get to go on the tour, you can take a virtual tour at <http://arcg.is/05uLLD>. There was also a powerpoint presentation. If you want to watch it, go to <https://bit.ly/2oIDg3E>

How Steep Is It?

One reaction to the tour of a part of the proposed route of the Atlantic Coast Pipeline was, "How can they build it here? It's steep as a horse's face!"

But is it? Are the mountains that the Atlantic Coast Pipeline crosses really as steep as a horse's face?

Horses' faces are, of course, not of uniform steepness. There is, however, a widely accepted standard in what is called "horse conformation", the standards used in judging horse competitions. It shows an "ideal head"; the face of that ideal head has a slope of approximately 59° or 171%.

The Atlantic Coast Pipeline route, on the other hand includes more than a mile of slope exceeding 60% with segments ranging from 26 to 267 feet in length. Thus far, there is only one short length (less than 30-feet) of ACP pipe buried where slopes are 60% or steeper. There is nothing that even approaches 171% (or 59°).

Thus, the route of the Atlantic Coast Pipeline is not literally as steep as a horse's face. Like "dumb as a box of rocks" or "crooked as a bag of fishhooks", "steep as a horse's face" is only metaphorically true. It is not a unit of measurement by which we can measure the steepness of the pipeline route.

At the same time, it's steep. Too steep to comfortably walk up without zigzagging. Steep enough to require extraordinary measures to keep slopes in place. Steep enough that when one sees the route the only reasonable reaction is "Damn, that's steep!"



Horse's face



WVHC tour of part of pipeline route

Rollbacks Proposed for State Review of Stream Crossings

The United States Environmental Protection Agency has proposed a new rule that would restrict the role of states in approving projects under the federal Clean Water Act.

Under the federal and state Clean Water Acts, anybody who wants to undertake a wide variety of activities which have an impact upon water must have a permit. These include discharging water into a stream, filling a stream, or crossing a stream or a wetland. Most recently this requirement has meant that both the Atlantic Coast Pipeline and the Mountain Valley Pipeline have been required to have a permit for pipeline construction.

Many of these permits are issued by federal agencies. Under current law, even when federal agencies issue permit decisions, states still have a role. Under Section 401 of the federal Clean Water Act, federal agencies cannot authorize projects in a state unless that state certifies (called a 401 Certification) that the project will not violate state water quality standards.

With the Mountain Valley Pipeline, the Atlantic Coast Pipeline, or any other project where federal agencies issue permits, West Virginia could have stopped the project by refusing the 401 Certification. If it did not want to refuse the 401 Certification outright, it could have conditioned its approval on the pipeline developers taking certain steps to protect water quality. Because of this power, the 401 Certification process is an excellent tool for imposing whatever conditions were necessary to protect West Virginia water.

The reason for this requirement of state certification were explained during the original debates on the federal Clean Water Act. Senator Muskie explained on the floor when what is now §401 was first proposed: “No polluter will be able to hide behind a Federal license or permit as an excuse for a violation of water quality standard[s]. No polluter will be able to make major investments in facilities under a Federal license or permit without providing assurance that the facility will comply with water quality standards. No State water pollution control agency will be confronted with a fait accompli by an industry that has built a plant without consideration of water quality requirements.”

Now the Environmental Protection Agency wants to take this right of the states away, or at least limit it. It has proposed a rule that would significantly erode state authority under the Clean Water Act by: (1) preventing states from denying projects that will, as a whole, directly and negatively impact the state’s water quality; (2) preventing states from placing conditions on projects that relate to the overall water quality impacts of a project, rather than just the specific “discharge” from the project; (3) restricting the time available to states and tribes to review and make decisions about major projects impacting their local waterways; and, (4) providing an outsized role for federal agencies in the Water Quality Certification process, in the name of economic development. The proposal would grant substantial discretion to the federal government to force multi-state projects through, without state or local buy-in. If finalized as is, the proposal would represent a major shift in how Section 401 under the Clean Water Act is implemented and enforced by states and tribes.

The West Virginia Highlands Conservancy has joined in a letter opposing the proposed change.

Does West Virginia really care?

The power to approve, deny, or condition certification of a proposed project gives states, including West Virginia, a powerful

tool to control or limit damage to water quality. If recent experience is any guide, it makes no difference whether the West Virginia Department of Environmental Protection has this tool or not.

Both the Atlantic Coast Pipeline and the Mountain Valley Pipeline had to have permits to cross streams and wetlands in West Virginia. Through the 401 Certification process, West Virginia could have prevented the Federal Energy Regulatory Commission from finally approving the pipeline as well as the United States Army Corps of Engineers from approving the stream crossings, etc. that the pipeline will entail until we had assurance that West Virginia’s water would not be damaged. West Virginia had the opportunity to either stop the project entirely or, more likely, place conditions upon it that would make it less damaging to West Virginia waters.

Instead of reviewing the projects and either rejecting them or placing conditions upon them, West Virginia waived its right to do so. For the details, see the stories in the December, 2017, and January, 2018, issues of *The Highlands Voice*.

Thus, the proposed rule change would severely limit the rights of states to restrict projects which need approval under the Clean Water Act. If recent experience is any guide, this would make little difference in West Virginia. The current West Virginia Department of Natural Resources has no interest in using the right which the Clean Water Act grants it anyway.

The Last Oak

by Nelson Tinnel

On a barren hill all alone
clings a tiny oak
to a jagged stone

The loggers came
with wheel and claw
No longer they use the axe and saw

No more the horse with chain and hook
with blade and claw
the earth they took

They stripped the land
and scarred its skin deep to the stone
like a wounded thing with fractured bone

The trees, their roots were its veins
and now the streams their blood stains
This tiny oak, will it stand?
for 100 years on this barren land

Can its seed find root on this skeletal rock
‘til men come again and seem to mock
the laws of god that they forgot

Nelson Tinnel is a resident of Birch River, in Nicholas County, West Virginia.

Mon National Forest Hiking Guide

Celebrating the 50th anniversary of the West Virginia Highlands Conservancy, the new edition of the treasured guide to every trail in the Monongahela National Forest features brand-new topographic maps and Kent Mason's gorgeous photos, all in color.

The Guide has been updated with the cooperation of National Forest District Rangers and Recreation Specialists to reflect changes in the past ten years:

- * newly designated wilderness areas
- * new trails near campgrounds and sites of special significance
- * a new complex of interconnected trails on Cheat Mountain
- * rerouted and discontinued trails
- * ratings for difficulty, scenery, access to water, and much else

The definitive guide to the Mon adds a wealth of information about history, wildlife, and botany; safety, preparation, and weather; horseback and mountain bike riding and cross-country skiing; as well as sources of further information on the Forest and its environs.

The Monongahela National Forest has long been known as a 'Special Place'. The hiking, backpacking, and cross-country skiing opportunities it provides are among the best in the eastern U.S. New wilderness and backcountry trails have been added to the outstanding areas we have appreciated for decades – Otter Creek Wilderness, Dolly Sods Wilderness, Flatrock Plains, Roaring Plains, Blackwater Canyon, Spruce Knob, North Fork Mountain, Shaver's Mountain, Laurel Fork Wilderness, Cranberry Wilderness -- and there are lesser-known gems to be found in between.

Profits from the sale of these guides support a wide variety of worthy environmental projects for the West Virginia Highlands Conservancy.

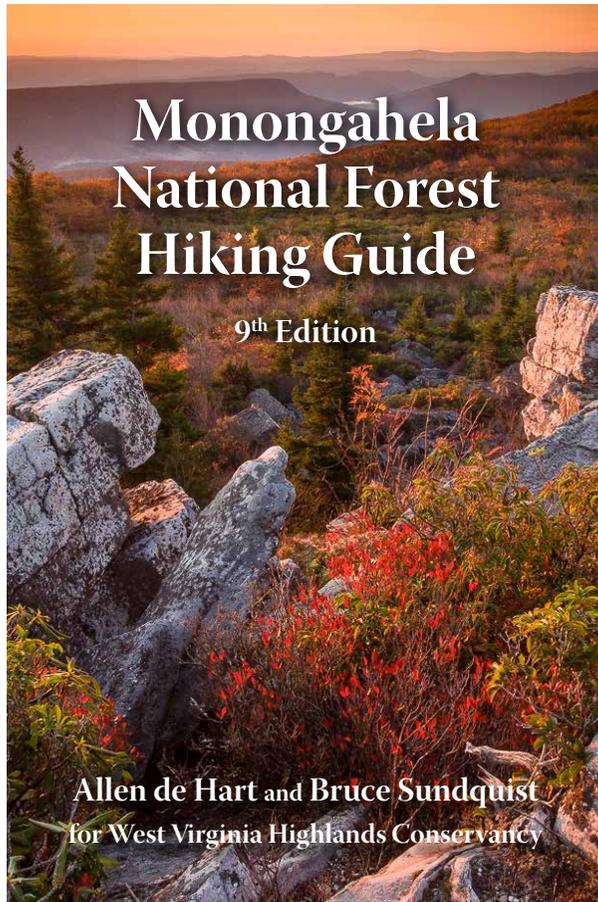
**Send \$18.95 plus \$3.00 shipping to:
West Virginia Highlands Conservancy**

P.O. Box 306

Charleston, WV 25321

OR

**Order from our website at
www.wvhighlands.org**



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The Highlands Voice is now available for electronic delivery. You may, of course, continue to receive the paper copy. Unless you request otherwise, you will continue to receive it in paper form. If, however, you would prefer to receive it electronically instead of the paper copy please contact Dave Saville at WVHC50@gmail.com. With electronic delivery, you will receive a link to a pdf of the Voice several days before the paper copy would have arrived. The electronic Voice is in color rather than in black and white as the paper version is.

BUMPER STICKERS

To get free *I ♥ Mountains* bumper sticker(s), send a SASE to P. O. Box 306, Charleston, WV 25321. Slip a dollar donation (or more) in with the SASE and get 2 bumper stickers. Businesses or organizations wishing to provide bumper stickers to their customers/members may have them free. (Of course if they can afford a donation that will be gratefully accepted.)



Also available are the new green-on-white oval *Friends of the Mountains* stickers. Let us know which (or both) you want.

HIGHLANDS CONSERVANCY BOUTIQUE



- ▶ The baby shirts are certified organic cotton and are offered in one infant and several toddler sizes and an infant onesie. Slogan is "I ♥ Mountains Save One for Me!" Onesie [18 mo.]---\$25, Infant tee [18 mo.]---\$20, Toddler tee, 2T,3T,4T, 5/6---\$20
- ▶ Soft pima cotton adult polo shirts are a handsome earthtone light brown and feature the spruce tree logo. Sizes S-XL [Shirts run large for stated size.] \$ 25.00, 2XL \$26.50

To order by mail [WV residents add 6 % sales tax] make check payable to West Virginia Highlands Conservancy and send to West Virginia Highlands Conservancy, Online Store, PO Box 306, Charleston, WV 25321-0306

The same items are also available at our on-line store: www.wvhighlands.org

T- SHIRTS

White, heavy cotton T-shirts with the **I ♥ Mountains** slogan on the front. The lettering is blue and the heart is red. "West Virginia Highlands Conservancy" in smaller blue letters is included below the slogan. Short sleeve in sizes: S, M, L, XL, and XXL. Long sleeve in sizes S, M, L, and XL. **Short sleeve** model is \$18 by mail; **long sleeve** is \$22. West Virginia residents add 6% sales tax. Send sizes wanted and check payable to West Virginia Highlands Conservancy
ATTEN: Online Store,
WVHC, P.O. Box 306, Charleston, WV 25321-0306.



HATS FOR SALE

We have West Virginia Highlands Conservancy baseball style caps for sale as well as I ♥ Mountains caps.

The WVHC cap is beige with green woven into the twill and the pre-curved visor is light green. The front of the cap has West Virginia Highlands Conservancy logo and the words West Virginia Highlands Conservancy on the front and I (heart) Mountains on the back. It is soft twill, unstructured, low profile, sewn eyelets, cloth strap with tri-glide buckle closure.

The I ♥ Mountains The colors are stone, black and red.. The front of the cap has ♥ MOUNTAINS. The heart is red. The red and black hats are soft twill, unstructured, low profile, sewn eyelets, cloth strap with tri-glide buckle closure. The stone has a stiff front crown with a velcro strap on the back. All hats have West Virginia Highlands Conservancy printed on the back. Cost is \$20 by mail. West Virginia residents add 6% tax. Make check payable to West Virginia Highlands Conservancy and send to West Virginia Highlands Conservancy, Atten: Online Store, P.O. Box 306, Charleston, WV 25321-0306