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# The Highlands Voice

The Monthly Publication of the West Virginia Highlands Conservancy

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## West Virginia Groups Oppose Morrissey's Attack on the Clean Power Plan

By John McFerrin

The West Virginia Highlands Conservancy, the Ohio Valley Environmental Coalition, Coal River Mountain Watch, Kanawha Forest Coalition, the Mon Valley Clean Air Coalition and Keepers of the Mountains Foundation have moved to intervene in an action previously filed by West Virginia Attorney General Patrick Morrissey and Attorney Generals from 23 other states which seeks to delay and ultimately invalidate the Clean Power Plan adopted by the United States Environmental Protection Agency.

The Clean Power Plan is designed to reduce emissions of carbon dioxide. Under the Plan, each state is required to develop a plan on how it intends to achieve the emission reductions. Under West Virginia law, the Governor, with the help of the West Virginia Department of Environmental Protection, will develop this "State Implementation Plan" and it will be reviewed by the West Virginia Legislature before it is submitted to the United States Environmental Protection Agency.

In the long run, Mr. Morrissey seeks to invalidate the regulations that carry out

the Clean Power Plan. In the short run, he seeks to prevent the regulations from going into effect while the case is pending in court.

The groups seek to intervene to oppose both of these goals. The Motion to Intervene points out that in "literally dozens of recent peer-reviewed studies, diligent medical researchers have documented the fact that particulate matter -- whether emitted from electric utility plants directly, or indirectly from the mountaintop removal mining projects from which those utilities obtain their fuel supply -- results in statistically significant increases of birth defects, decreased birth weights, diminished educational attainment, increased cancer, pulmonary and cardiac disease, and very substantially decreased life expectancy."

This case is about two things. First, it is about whether we want to live in the present and prepare for the future or cling to the past. Coal has been our main source of electricity for a century. Mr. Morrissey wants to go back to that past, a past that made West Virginians sick and contributed to climate change. We want to move

forward to a future where there is more balance in meeting our energy needs.

Second, it is about who speaks for West Virginia and for West Virginians. Mr. Morrissey presumes to speak for the State and for all of us. His opinion may be that there is a war on coal and that all West Virginians should resist. This is not true. Climate change is a serious problem and we all have to do our part in addressing it. The groups felt compelled to intervene so that the Court will have the benefit of viewpoints other than that of Mr. Morrissey, a viewpoint not shared by all West Virginians.

The groups do not necessarily agree with the Clean Power Plan or all that is in it. It is certainly not the perfect solution. Even if it is not perfect, it is better than scrapping the whole thing and demanding that our electricity only come from coal.

The case is filed with the United States Court of Appeals for the District of Columbia Circuit. West Virginia groups are being represented by William DePaulo, an attorney based in Lewisburg, W.Va.

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## Ramblin' the Ridges

By Cynthia D. Ellis

### Shine a Light

Darkness comes early as the winter solstice approaches. A candle's glow can be welcome. But the darkness feels natural and comforting, signaling the orderly march of seasons and heralding the quiet peace of the countryside.

Some of us savor dusk at suppertime and the blue-black nights. Walking down the lane to shut the gate under the Big Dipper is a treat. Slipping into a warm coat when arising, and stepping just outdoors to find Orion is another.

So it was gratifying to learn recently of efforts to make additions to Calhoun County Park, one of West Virginia's premier Dark Sky spots. Folks already travel from Ohio and Pennsylvania to join West Virginians in enjoying the canopy of the night sky at Grantsville. Community leaders in that area are to be commended for promoting such mountain-friendly endeavors; they've been urged to think far ahead in regard to protecting their starry nights from light pollution.

A different nocturnal bonus has been some recent video captures by the West Virginia Department of Natural Resources. Bait cameras have been filming wildlife visiting carcass stations and the intended subjects were diurnal birds---Golden Eagles. Still, the cameras function at night and surprise guests have been seen---notably Spotted Skunks. These shy and secretive mammals sport splotches, not stripes, and their presence in the Mountain State had been unclear. They're showing up at bait sites though and have now been located in McDowell and Wyoming counties, and also up through Fayette and



Braxton, Greenbrier, Pocahontas, Randolph counties, and into the eastern panhandle. [Facebook users can see a DNR skunk video at <https://www.facebook.com/wildlifewv/videos/561431884005761/?fref=nf> ]

These new developments aside, there are traditions entwined with feelings about the dark of winter here in Appalachia. Some, such as "Old Christmas," can be traced back to our Celtic roots. Those roots run deeper, through some cheerful aspects of the even older festivals of Saturnalia, with candles and bonfires and more. Sometimes, "Grudges and quarrels were forgotten while

businesses, courts and schools were closed. Wars were interrupted or postponed and slaves were served by their masters..." Those merry themes did not entirely survive; and the mountain celebrations in the early new year were based on disputes about calendar changes for a holiday.

The cheer of January 6<sup>th</sup> is a feature of the Appalachian fiction of Silas House. This Kentuckian author and activist has retold James Joyce's "The Dead" in a short story, "Another Country." In it there are young and old mountain folk, under the thumb of Coal, and I found the shadows of Judy Bonds and Don Blankenship as themes emerged. There was also a character wearing a button with our own West Virginia Highlands Conservancy's "I ♥ Mountains" slogan. Another feature was the old, old song "Foreign Lander" which probably wasn't supposed to remind me of out-of-state workers at gas well pads, but it did.

Here are links to the Silas House story and to the song. [http://www.blackbird.vcu.edu/v14n2/fiction/house\\_s/country\\_page.shtml](http://www.blackbird.vcu.edu/v14n2/fiction/house_s/country_page.shtml)

<https://www.youtube.com/watch?v=2RoDOTWI-Sg>

Recently, some bright, candle-like light has been shined on several issues of interest to us.

We joined other groups in legal proceedings to ensure the clean-up of unremitting stream pollution after technical reclamation of mine sites. [see Cindy Rank's story on page 8]

Solar co-operatives continue to make progress in West Virginia, with efforts now underway in Charleston, Morgantown, Wheeling, and for the area encompassed by Upshur, Randolph, Tucker counties.

And we are uplifted by thoughts of Charlie Baer. I am remembering sitting in the cottage at Greenland Gap with him; he was concerned about preservation of that Grant County site and others then. Now he has remembered us in his estate; his legacy lives on.

As this year passes, may darkness and light, each in its own way, bring you joy.





## “WE DO THE RIGHT THING; ALWAYS HAVE”

By Rick Webb

The Virginia Department of Environmental Quality only inspects pipeline projects on a “complaint driven basis.” In an effort to determine just how this works and to address an immediate and serious environmental problem, the Dominion Pipeline Monitoring Coalition (West Virginia Highlands Conservancy is a member) filed a complaint with the Department of Environmental Quality on November 11, 2015 concerning non-compliance with erosion and sediment control and storm water management requirements at the Columbia Gas of Virginia (CGV) pipeline project on Peters Mountain in Giles County, Virginia. The DEQ has not responded to our complaint. The only response from any responsible party was included in a Staunton Newsleader article, which reported the following:

*Robert Innes, director of communication for Columbia Gas of Virginia, said the complaint by the coalition is misleading. He said there was a piece of equipment which had discharged diesel, but it was immediately cleaned up and they worked with the Virginia Department of Environmental Quality to address the issue.*

*“We were not aware it was out of service,” Innes said of the primary water supply. “There was an odor and we were notified about it and we remediated the area as part of our effort we worked with the property owner as well as DEQ to remediate it to their standards.”*

*Innes said he was not sure the situation was “qualified to be an event” where enforcement action by the agency was needed.*

*“We work in the right-of-ways, what they call these facilities, to maintain them and we protect the environment,” he said. “We do the right thing and we always have. I don’t know what their motive is behind this.”*

Are Columbia Gas of Virginia decision-makers suggesting that a responsible public water utility would continue to distribute diesel-contaminated water to its customers? Do they really consider contamination of a public water supply a non-event? Did they fail to read the Department of Environmental Quality investigation report where the spill site is described?

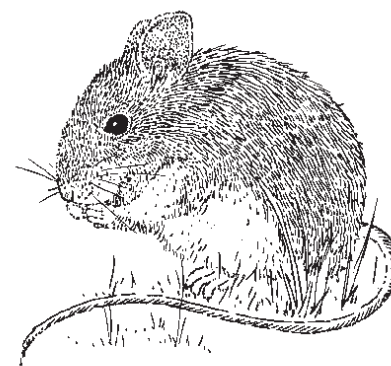
The diesel-contaminated soil, which had been covered with straw, was only cleaned-up after the water utility brought it to the attention of the DEQ and the DEQ brought it to the attention of Columbia Gas of Virginia. If we can rely on CGV’s own activity logs, the clean-up occurred more than a month after the spill.

### **Beyond the Immediate Crisis**

Public water supply contamination and continuing drainage from the pipeline corridor into the water supply source is a public health emergency. The Dominion Pipeline Monitoring Coalition complaint, however, goes beyond this immediate crisis—which involves a 12-inch-diameter pipeline, and illustrates on a local scale what we face on a regional scale.

Our complaint also concerns the multiple 42-inch-diameter pipelines proposed for this region, and the unacceptable environmental risk associated with pipeline construction on an unprecedented scale in steep mountain and karst valley landscape. It concerns the fact that we depend on a dysfunctional regulatory system.

Our complaint to the DEQ concerns the agency’s failure to review pipeline construction plans, to practice meaningful oversight, and to enforce compliance with basic environmental law and regulations. Our complaint to the DEQ is about a particular immediate and serious environmental problem, and it is about regulatory effectiveness in general. We are testing the system. We need to understand how it fails, and we need to find out what we can do about it. If the Department of Environmental Quality cannot effectively manage a relatively small, local problem, how can we expect it to manage bigger problems caused by the multiple 42 inch diameter pipelines that are proposed for our region?



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The West Virginia Highlands Conservancy web page is [www.wvhighlands.org](http://www.wvhighlands.org).

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.

# Public Service Commission Siting of Industrial Wind: Time for a Change

By the Wind Committee of the West Virginia Highlands Conservancy

Industrial or grid-scale wind energy already has a foothold in the highlands of West Virginia with five projects in operation and several more permitted by the Public Service Commission of West Virginia (PSC). What more is there to say about industrial wind energy? What of these industrial size wind turbines that dot out ridges? Some see them as an important part of our energy future, an alternative to coal. Some see them as threats to human health as well as the environment and ugly both now and in the future when they are rusting hulks on the mountain tops. Some see them as part of the “all of the above” energy strategy; others see them as producing so little power so unreliably that they are not worth having.

There is one thing, however, that we agree on: we can’t put them just anywhere. Assuming, as West Virginia does, that there are to be industrial size wind turbines, we need a sensible policy for siting them. That is why the siting of wind turbines should be on the current Legislature’s plate.

The Legislature has been down this road before. In 2003 it passed a statute that required the PSC to establish rules for siting Exempt Wholesale Generators which includes approving the location of an industrial wind power facility, to “appraise and balance the interests of the public, the general interests of the state and local economy, and the interests of the applicant.”

After the Legislature acted, the PSC went through the rulemaking process. In the summer of 2005 it made final the rules on siting we have today. Though the Siting Rules cover a fairly broad range of topics regarding the potential impacts of industrial wind generating facilities, to date, the rules most subject to controversy and the presentation of conflicting evidence have largely related to the detriment to the environment generally and to wildlife in particular, disruption of the viewshed, diminished integrity of historic resources, and the introduction of noise into extremely quiet rural environments of siting industrial wind generating facilities.

There is ample evidence that the rules established and approved ten years ago by the PSC are woefully deficient and are not working. The PSC lacks the

expertise to apply these rules. The PSC and its staff have extensive experience in evaluating traditional public utilities. They are not, however, experts on conservation issues, historic preservation, noise, etc. They can hardly be expected to evaluate an application that addresses these issues.

In the absence of any experience in evaluating conservation issues, historic preservation, noise, etc., the Public Service Commission has fallen back to relying upon the applicants. The applicants would always say that their proposal satisfies siting requirements. If the PSC lacks the expertise to evaluate information to make a decision on siting, it would tend to accept the assertions of the applicants without any real evaluation. If, for example, the developer presents a study concluding the operation would not affect bats, the PSC lacks the expertise to determine if that study is correct or the knowledge of other studies which have reached the opposite conclusion. It will tend to conclude that the operation would not affect bats with no real basis for concluding that.

Under the current system, the only source of information other than the applicant is private citizens who are concerned about the wind generating facilities. Although their own observations are valuable, private citizens do not have the technical expertise to challenge company assertions about conservation, historic preservation, etc. It is possible for them to acquire this expertise by hiring experts at great personal expense. This solution is neither practical nor fair. In most cases citizens would not be able to match the applicant’s resources. Neither is it fair to expect citizens to pay for an evaluation of an applicant’s proposal. That is the Public Service Commission’s job.

The result is a system in which whatever the applicant says on siting issues is taken as true. The siting rules become largely meaningless.

The Legislature could fix this. While the Public Service Commission may not have the expertise to determine whether or not the applicant’s representation are sound and the siting rules are being complied with, the State does. There are thirty four state agencies with the expertise to assist the

PSC to evaluate the information submitted with an application. If the PSC needs to know about bats, the state has employees who know about bats. If the PSC needs to know about historic preservation, the state has employees who know about historic preservation. Yet the PSC is not required to consult with those agencies and in fact has refused to consult with them in the past.

The Legislature should recognize and fix this problem by creating a mechanism by which the PSC taps the expertise of other state agencies that are able to evaluate any detriment to the environment generally and to wildlife in particular, disruption of the viewshed, diminished integrity of historic resources, and the introduction of noise into extremely quiet rural environments.

This proposal would help the Public Service Commission fulfil its mission of regulating Exempt Generators in a way that is fair to all concerned. It would end the current situation in which the siting regulations have little or no practical impact in determining where an industrial wind facility is located or not located.

## Important Announcement

The quarterly board meeting of the West Virginia Highlands Conservancy is scheduled for Sunday, January 24, 2016, 9:30 a.m., at City Center East, Charleston [Kanawha City area]. By tradition, all members are welcome to attend and take part in the discussion although only board members may make motions and vote. For details and directions, contact Cindy Ellis, [cdellis@wildblue.net](mailto:cdellis@wildblue.net) 304 586-4135



## EWGs- Exempt Wholesale Generators

By Frank Young

Although the accompanying article about siting rule legislation focuses on industrial wind farms, they are not the only type of facilities that would be affected by siting legislation. Windfarms are only the most visible of what are called “certain electric generating facilities”, a term which applies mostly to what are called EWG facilities. EWG are Exempt Wholesale Generators. EWGs are exempt from the more strict regulations relating to retail utility company owned and operated “base load” power plants. In West Virginia and other regulated retail electricity market states the base load plants are required to meet certain standards of “public convenience and necessity” before being permitted by the WV Public Service Commission (PSC).

But in recent years, as several states have mostly deregulated their retail electricity markets, there have appeared dozens of speculative investor owned power generating facilities (power plants) to produce electricity for the unregulated electricity markets. Speculative investor owned facilities are usually not owned by established retail power companies such as Appalachian Power Company (APCO) or Monongahela Power Company. APCO and Mon Power generating facilities operate under a system of rates (called tariffs) which virtually guarantee the plant owners a certain rate of return on their investment in the facilities. In West Virginia the “captive” consumers pay a set rate that’s approved by the PSC, based on the power companies’ cost of providing electricity.

But EWG facilities sell their power on the unregulated “wholesale” electricity markets in partially or totally unregulated states. Proposed EWG facilities need not establish any particular need for the electricity they would generate, nor demonstrate that they serve any even general public purpose. In West Virginia all that is needed for the WV PSC to issue a “siting certificate” for such otherwise unregulated facilities is for the applicant to provide a certain level of information for the PSC’s consideration. Under the current weak siting regulations, PSC approval of EWG projects is almost always predictably certain.

EWG facilities can be fueled by gas (such as the Big Sandy Peaker Plant in Wayne County) or by coal (such as the Longview Power Plant near Morgantown), and sometimes by hydro power. But in West Virginia EWG facilities consist mostly of miles and miles of long strings of wind turbines on mountain ridges. These “wind farm” projects are usually more controversial because of their location in highly visible places and allegations of nuisance noise emanating from the facilities, among other complaints.

## Happy World Soil Day!

In December 2013, the 68th UN General Assembly designated the 5th of December as the World Soil Day. At the same time, it declared 2015 to be the International Year of Soils.

Soil is the basis for food, feed, fuel and fibre production and for services to ecosystems and human well-being. It is the reservoir for at least a quarter of global biodiversity, and therefore requires the same attention as above-ground biodiversity. Soils play a key role in the supply of clean water and resilience to floods and droughts. The largest store of terrestrial carbon is in the soil so that its preservation may contribute to climate change adaptation and mitigation. The maintenance or enhancement of global soil resources is essential if humanity’s need for food, water, and energy security is to be met.

No commercial interests have as yet latched onto World Soil Day as an occasion for sending cards or exchanging gifts. No Soil Day carols in the mall. It’s just a day to think about the source of 95% of our food and an even bigger percentage of our trees, flowers, etc.

Thanks to Marion Harless for noting the day and suggesting that we recognize it.



## Somebody to Contact

Some of the stories in this month’s *Voice* are part of ongoing controversies that you may wish to know more about or express an opinion upon. For matters that will arise in the legislature when it convenes in early 2016 (p. 4, 5), the web site of the West Virginia Legislature would be helpful. It is <http://www.legis.state.wv.us/>. There you will find lists of delegates and senators, status of bills, schedules, and lots of other information.

For matters having to do with the proposed Atlantic Coast Pipeline (p. 3, 7). The Federal Energy Regulatory Commission has resources. You can start at [www.ferc.gov](http://www.ferc.gov). To read anything that has been filed in the past about the proposed pipeline, go to <http://www.ferc.gov/docs-filing/elibrary.asp>.

## Book News

*For I Am Mountainborn, Poetry from the heart of a West Virginian* by Lenore Coberly

Reviewed by Cindy Rank

Lenore McComas Coberly's new book of poems reveals the heart and soul of this gentle and thoughtful woman: *For I Am Mountainborn*.

Her experiences and travels are many and far ranging, her feelings are from old roots born and raised in the Mountains of southern West Virginia.

I first became aware of Lenore several years ago when I read her book *Sarah's Girls*—a Chronicle of Big Ugly Creek (Lincoln County WV). I was privileged to hear her speak and read at Taylor's Bookstore at that time and then wrote about the book for *the Highlands Voice*. ["A Big Ugly Book", May, 2007]

Having been to Big Ugly and neighboring Mud River on many occasions and feeling a special connection with the mountains separating the two watersheds of Lincoln County that are now besieged by the ever-expanding Hobet 21 mining complex, I looked forward to reading anything Lenore might write.

This newest of her books of poetry did not disappoint, but indeed left me craving for more.

I'd like to think of myself not as mountainborn, for I was born Pittsburgh PA, schooled there and in Wheeling, WV and

Milwaukee, Wisconsin. But I do recognize myself at least as mountainbred these last four plus decades of my life.

I recall how sitting on the narrow side deck of our hand built roughly constructed cabin in southern Upshur County on my thirtieth birthday I was completely in awe of what had become the beginning of a new life here in West Virginia. (People would have to be old enough to remember the mantra of the sixties about not trusting anyone over thirty to appreciate my new found joy and amazement.)

Lenore represents the best of our friends and neighbors we've met over the years, the native West Virginians with century old roots in these hills I now call home.... With skills and talents that built walls of stone and logs of felled trees and provided food – hunted, grown, and gathered – by gnarled and knowing hands --- wise beyond the formally educated minds of other friends. They possessed an instinctive wisdom like that of our Native American forerunners who were forced out of their homes for our more "civilized" settlers and forefathers.

That knowledge and feel for a life force unique to rural folks runs as an undercurrent in Lenore's collection of poems that take her from Big Ugly Creek in Lincoln County West Virginia to far-flung places in this country like New York City, California and Wisconsin and around the world to places such as the Philippines, India and China.

And no matter where she is and what it is about the occasion or place or time that strikes her fancy to write about there is always that undercurrent, a thin thread of memory of and connection to her formative years as mountainborn in Big Ugly, West Virginia.

She remembers schoolmate Charles (Chuck) Yeager not only for his historic soundbreaking moments, but for their days in chemistry class and connects his desire to go camping out with the stars to his down to earth human adventures and one room schoolhouse beginnings. "Bodies can flourish, minds produce, in lower, richer land, but to find the right stuff, the stuff of dreams, we must have hills."

... And she connects the 2,200 year old terra cotta army of X'ian China (often

called the eighth wonder of the world) to the earth that worked its way through the exploring toes of her youth.

Lenore is truly a woman for all seasons. She is salt of the earth mixed with wisdom of the ages and ever-sharing in her down home roots that connects us all to this ever widening world.

I particularly love the way she connects her (our) past with the present in the final poem of *I Am Mountainborn* written about Xi'an, China.

*In Shanghai insistent horns  
of foreign visitor's cars demand  
first passage and win.*

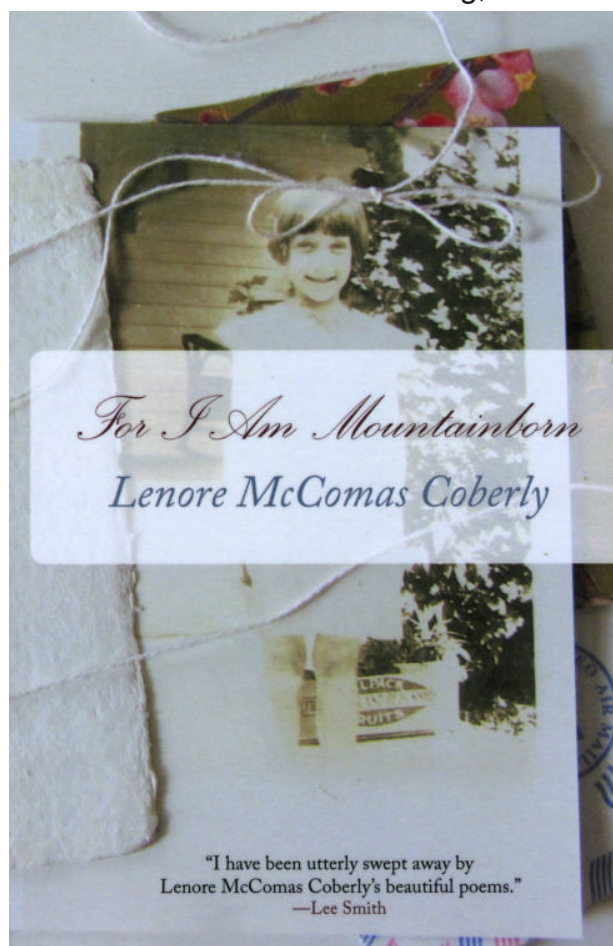
*In Changsha our arrogant horns  
call for special rights  
that are denied*

*By working trucks and a toiling  
man pulling a cart on steep roads  
near the home of Mao.*

*I think I know this place,  
this man,  
for I am mountainborn.*

And oh so much more await readers of Lenore McComas Coberly's works ... I recommend them all.

*I Am Mountainborn* by Lenore McComas Coberly is available from local bookstores (if you're lucky) or from Firewood Press, P.O. Box 482, Madison, WI 53701, or Lenore Coberly, 4114 N. Sunset Ct., Madison WI 53705 -- \$15.00 plus \$3.00 shipping.





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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

The gang that couldn’t shoot straight?

Dominion Fails Soil Testing 101

Dominion Resources has made mistakes in its soil testing in preparation for what it hopes will be construction of a pipeline from north central West Virginia to Virginia and North Carolina. As a result, it now has to start over with its testing program.

The route that Dominion has proposed passes through both the Monongahela National Forest and neighboring George Washington National Forest. Before that can happen, the National Forest Service must give its approval. Before the National Forest Service can evaluate the project and its effect on National Forest lands, it must have the results of soil tests, the tests that Dominion was supposed to do. The Federal Energy Regulatory Commission would also use the soil testing in preparing an Environmental Impact Statement on the project.

The Forest Service was dissatisfied with Dominion’s testing program. In a letter to the Federal Energy Regulatory Commission, Clyde Thompson, Supervisor of the Monongahela National Forest said,

In summary, the Forest Service cannot use the results of these soils surveys to evaluate project effects on NFS lands. Furthermore, the Forest Service recommends the Federal Energy Regulatory Commission (FERC) not utilize data from soils surveys conducted to date on NFS lands in the preparation of the environmental impact statement. We remain concerned that ACP identified its preferred route and filed an application with the FERC without first completing the soils and geology surveys. Results of soils and geology surveys should be considered in the process of route selection.

The Forest Service’s criticisms centered around failure to follow Forest Service protocols, using unqualified contractors to do the testing, and possibly misrepresenting the identity and qualifications of the people who actually did the testing.

Dominion says this was all a misunderstanding and a failure of communication. It plans to do the testing again.

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 \$14.95 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.

Ho, Ho, Ho!

Have a Holly Jolly holiday at our Online Store! Consider these gifts: Hiking Guides [books or CD’s], History Books, Caps, Shirts [short-sleeved, long-sleeved, polo], Baby & Tot shirts, and stickers. Surprise someone with a gift membership to the West Virginia Highlands Conservancy! It is a great time of year to check out our wares! Note: If you want to give a gift membership, you have to take an extra step on the page where you put in billing information. At the bottom just above where you click ‘Pay’ there is a field titled “Add special instructions to the seller” and a link called Add that you can click on and type up to 256 characters. To send a gift membership you have to put the recipient’s name and address there.



# Landowner Responsible for Water Pollution

By Cindy Rank

In these waning days of the big coal boom of the last decades much is at stake where water quality is degraded from mining operations.

There are fewer and fewer companies still in business – or at least not in bankruptcy – that can be held accountable for the water pollution flowing from their once profitable operations.

One option for addressing these problems has been and continues to be appealing to or, if necessary, forcing the landowners who may well have once profited from leasing to the mining operators and have the ability to pay for treating polluted water flowing from their land in violation of limits that protect the quality and use of the streams in question.

West Virginia Highlands Conservancy has filed several legal challenges to do just that – i.e. to force corporate landowners to accept their responsibilities to treat bad water leaving their properties.

In most recent of these legal challenges on November 24, 2015 West Virginia Highlands Conservancy, Ohio Valley Environmental Coalition, and Sierra Club – represented by Appalachian Mountain Advocates attorneys Amy Vernon-Jones and Joe Lovett – initiated legal action to stop pollution from three valley fills at the site of the now “reclaimed” White Flame mountaintop removal mine in Mingo County, WV. Filed in the U.S. District Court for the Southern District of West Virginia, our filing argues that landowning companies are responsible for ensuring that former mountaintop removal sites still meet Clean Water Act protections against mining pollution.

In this case the Pocahontas Land Corporation owned White Flame mine. Water testing downstream from the site has found that valley fills are responsible for high levels of selenium and ionic pollution, and therefore the corporation has failed to meet its legal responsibility to mitigate pollution entering local waterways.

Even after a mine is reclaimed, valley fills continue to collect and channel water into local waterways. Valley fills are engineered with ditches on their surface and drains underneath. These ditches and drains are integral to the permanent structural stability of the fills, and so are not removed when a mine is reclaimed. Water samples collected by independent sources and the West Virginia Department of Environmental Protection downstream from the White Flame Mine valley fills found increased ionic pollution and selenium levels in the stream. Elevated levels of those pollutants are reliable indicators of continuing pollution coming from valley fills linked to active and reclaimed surface coal mines.

The legacy of polluted streams from coal mining cannot go unaddressed unless we want to leave the burden of living with damaged water to our children and grandchildren and to any new industries that want to invest in the state. We can and must do better, including making sure that the corporate owners of these mined lands bear the responsibility and costs of treating the pollution that continues to flow from their properties.

Hence our recent legal actions in this case.

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# Groups Want Arch Coal Subsidiary to Clean Up Its Mess

By John McFerrin

The West Virginia Highlands Conservancy, The Sierra Club, and The Ohio Valley Environmental Coalition have sued Coal-Mac, Inc., seeking to require it to stop polluting streams near its surface coal mining complex in Logan County, West Virginia. The complex includes surface mines, preparation plants, and refuse facilities in the Pine Creek watershed. The groups are alleging that Coal-Mac, an Arch Coal subsidiary, is violating the terms of its Clean Water Act pollution discharge permits and its Surface Mining Coal Reclamation Act surface mining permits. In addition, the groups claim that Coal-Mac is violating the terms of its Clean Water Act section 401 water quality certification, which cleared the way for the U.S. Army Corps of Engineers to issue a section 404 fill permit for the mine.

Before Coal-Mac began operating in the watershed, the streams had low pollution levels and healthy streams. Today, the streams are choked with ionic pollution and only the most pollution-tolerant organisms remain.

## What is conductivity?

The “ionic pollution” that the Plaintiffs allege is measured in conductivity. Conductivity is a measure of the ability of water to pass an electrical current. Totally pure water is a poor conductor of electricity. Generally speaking, the more inorganic dissolved solids such as chloride, nitrate, sulfate, and phosphate anions (ions that carry a negative charge) or sodium, magnesium, calcium, iron, and aluminum cations (ions that carry a positive charge) that are present in the water, the more easily the water can conduct electric current. Thus, if we measure the conductivity and it is high, it tells us that there are a lot of these and other substances dissolved in the water. While it does not identify individual substances, the conductivity reading gives

an overall reading of the concentrations of substances in the water.

Conductivity is useful as a general measure of stream water quality. Research has shown that high conductivity can make a stream inhospitable to aquatic life, making the stream biologically impaired.

## The short version

The permits that allow the mining prohibit Coal-Mac from causing a violation of water quality standards. The Plaintiffs have data that shows what the streams were like before the mining began. The streams were in good shape. The Plaintiffs also have data showing what the streams are like now. They are in much worse shape, with only the heartiest organisms still alive. They want Coal-Mac to fix this.

## A note about testing

This story refers to “allegations” only because plaintiffs always have the burden of proof. Until evidence is presented, it can technically be said that nothing has been proven and we can’t assume that Coal-Mac has done anything wrong. Because of the way the Clean Water Act works, an assumption of innocence is almost never true.

The Clean Water Act and permits issued under the Clean Water Act require that companies monitor water leaving the site and streams near the site. They then must report the results to the Department of Environmental Protection.

This system of self-monitoring produces occasional grumblings about foxes, chicken houses, etc. In cases such as this one, however, where someone looks at the reports and notices the violations, the system works. There is not much point in the company denying the violations. The “allegations” are based on data the company submitted.

This case, and others like it,

illustrate the importance of integrity in the testing and reporting system. Stories by Jim Van Gundy in the December 2014 and November 2015 issues of *The Highlands Voice* discuss a situation in which the integrity of the testing was compromised and what the Department of Environmental Protection is doing (or not doing) to remedy the situation.

## What Happens Next

There is no answer from Coal-Mac so nobody can say for sure what will happen next. Because of the reports, there is little doubt that the pollution exists. The focus will probably quickly turn to what to do about it. Coal-Mac will probably be ordered to come up with a plan to clean things up.

Hanging over this, and other coal related litigation, are the financial troubles in the coal industry. Coal-Mac parent Arch Coal is not immune from the same market forces that have troubled other coal companies in recent months. The possibility that Arch Coal’s financial difficulties will leave West Virginia holding the bag always exists.

The groups are represented in this matter by attorneys Mike Becher and Joe Lovett of Appalachian Mountain Advocates.



# New King of Cute in Town?

By John McFerrin

For years those who watch efforts to protect threatened species have noted that people have more enthusiasm for protecting species whose members are big, or charming, or cuddly than they have for homely little beasts with little personal charm. Thus there is enthusiasm for protecting the Giant Panda which is big, cuddly, and cute. It gets to be the symbol for the National Wildlife Federation. It gets to star in movies; stores sell stuffed replicas. We all want to protect it.

There is less enthusiasm for protecting the also threatened Allegheny Wood Rat. It has all the grace and charm of, well, an Allegheny Wood Rat.

The phenomenon is so well known that it even has its own jargon. Animals such as the Giant Panda are known as “charismatic macro fauna.” These are the large animals that have such widespread popular support that their extinction would, of course, be unthinkable.

In theory charm should not matter. There are two big ideas that propel the effort to protect endangered species. One is that it is morally questionable for one species, humans, to completely eradicate another. The second is that we are part of a natural system. That natural system will not work as well if we allow some of its parts to be discarded. Neither of these have any room for cuteness or charm as reasons to be concerned about the continued existence of a species.

Now there is a new species poised to knock the Giant Panda off its perch as the King of Cute: the Cow Knob Salamander. Just as in the old cowboy movies with young bucks seeking to knock off the old gunslingers, it is poised and ready. It may not be as big as the panda but in the cute department it takes a back seat to nobody. It could have its own TV show or be a spokesamphibian for a major insurance company.

Both the Cow Knob Salamander and the Giant Panda are threatened. The Giant Panda is threatened by habitat loss; the Cow Knob Salamander is threatened by the Atlantic Coast Pipeline. The two threats are connected in only the most tangential and tenuous way so it is not a question of protecting one or the other. Both deserve protection. But if it ever were to come down to a battle of cuteness, the Cow Knob Salamander is ready to give the Giant Panda a run for its money.



**We report, you decide: who’s the king of cute?**

## Or Is It All in the Photography?

The Cow Knob Salamander is making a serious bid for King of Cute (see accompanying story). But is it all in the photography? The Cheat Mountain Salamander is also threatened by the Atlantic Coast Pipeline. Yet it is not making a bid for King of Cute. Is this because it is inherently not cute? Or is it because the Cow Knob Salamander managed a little half smile for his picture?



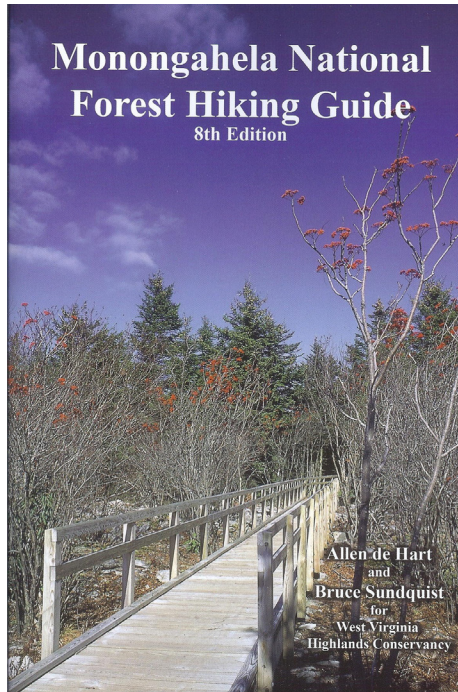
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By Allen de Hart and Bruce Sundquist

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# Home

By Mart Kabochi

I'm back home now, in Nairobi, Kenya, immersed in University classes and focused on the upcoming exams. As I reflect on my Internship with the Central Appalachian Spruce Restoration Initiative (CASRI), I realize that things have changed; I'm viewing life through a different lens than I was before. I'll never be able to thank all the people who contributed to my 5-month Internship, but I would like to mention a few of them. Neither will I be able to articulate all the wonders I experienced, but I would like to share a few, in retrospect, about my time spent in the United States of America.

I am fortunate, honored and extremely grateful to have been chosen to intern for CASRI in 2015. It was especially rewarding because I feel like I have made a positive contribution to the work of CASRI, while participating in a life-changing opportunity for me to intern in the USA. Engaging in a public/private collaboration, such as CASRI, and learning about grassroots organizing, has been a major benefit to my studies.

My name is Mart Kabochi. I was born in Nanyuki, Kenya, located on the western slopes of Mount Kenya, right on the equator. I attended primary school in the same town which is in the Rift Valley Province. While attending St. Mary's Boys Secondary School in Nyeri, our book club focused on the conservation works of Kenyan National Hero, Wangari Maathai, the leader of the Green Belt Movement and Nobel Peace Prize Laureate. She once said; "Until you dig a hole, you plant a tree, you water it and make it survive, you haven't done a thing. You are just talking."

Through a government sponsored program, I am now pursuing degrees in Political Science and Psychology at the University of Nairobi, the largest collegiate research university in Kenya with over 60,000 students. I am currently in my third year in the University and will finish my degree in 2016.

I am an active member of Friends of Karura Forest, a citizens group working to protect and restore a large urban forest in Nairobi. In 2014, I traveled to Moshi, Tanzania, to become involved with a forest restoration and conservation education project on the southern slopes of Mount Kilimanjaro. I helped teach secondary school students the importance of planting

trees and conserving the environment. While there I met American Forester and Conservationist, Dave Saville, who was working on the project.

Dave, a Program Coordinator for the West Virginia Highlands Conservancy, working with CASRI, was impressed with my interests and saw an opportunity to provide an internship for me. Together, we developed a program which we were able to implement through the US Fish and Wildlife Service's Canaan Valley National Wildlife Refuge via a cooperative agreement with the US Forest Service's International Program. We were successful in fulfilling the requirements and getting through the process. I was awarded an Internship (J-1) Visa to the USA, where I spent January – May, 2015.

Dave Saville was responsible for administering the details of the Internship

Dave introduced me to the American culture, arranging for educational trips to phenomenal places in the country like the US Capitol building in DC, the Supreme Court, Martin Luther King monument, The Phipps Conservatory in Pittsburgh, and Central Park in New York City. I was also able to visit San Francisco, California. Dave arranged for my working stations in Morgantown West Virginia, The Canaan Valley National Wildlife Refuge, and work with The Nature Conservancy and the Monongahela National Forest.

When I arrived at the airport in Washington DC, I was still fresh and curious about the whole American experience. It was late afternoon the sun was shining and I felt warm and happy as I made my way through customs, which went smoothly. Then, a happy reunion with my Supervisor, Dave Saville, and when we left the airport, I



**Working at Canaan Valley National Wildlife Refuge**

program and supervising me. He picked me up at the Dulles International Airport in Washington, DC on the coldest day of winter 2015 with below zero degrees temperatures. This was my first experience with snow.

experienced a crisp, chilly and inexplicable cold I had never felt in my life. The temperatures were in single digits and the wind was blowing fast.

**(More on the next page)**



## Back Home to Kenya (Continued from previous page)

We spent the next couple of days in DC. It was the real America! DC was fun and lovely despite the cold winter season and I was glad to experience it. Then we hit the road to Morgantown West Virginia. It was a learning experience right from the start and I was able to learn about the interstate roads, connection between state boundaries and after a few hours' drive, we were finally in Morgantown, which was my first work station of the Internship. I was glad to meet Dave's family and friends and they all welcomed me so gracefully. I was able to experience West Virginia University where I interacted with students and faculty. West Virginia became a home to me with all the friendly folks and peaceful streets.

Special thanks to the West Virginia Highlands Conservancy (WVHC) which took the lead role in administering this program. This included funding and arranging visas. I was fortunate to be able to attend WVHC meetings and meet the great folks behind the organization. They were not only welcoming but also gave me rich tutelage about how a small volunteer-run organization can effectively engage with other organizations and government agencies to accomplish important conservation goals.

I knew Dawn Washington, Wildlife Biologist for the US Fish & Wildlife Service, even before I came to the United States. She was instrumental, since day one, with getting my visa and my internship documentation. Dawn is one amazing woman; I was fortunate and grateful to have met. It was with her encouragement, cooperation and hard work that my internship was possible. She always has this vast knowledge of how to run things and get the job done. She would arrive in the office early and give me duties that would be a learning experience for me. She not only was a genius in her job but also made sure that she grouped me with colleagues Kris, Mimi and Rachel who were like family to me. They didn't mind explaining things to me so that I could better understand and learn, which was very fulfilling for me. I hope I will be able to work with Dawn again sometime in future and I thank her for being an amazing host and opening ways for my learning during the whole internship.

Ron Hollis is the USF&WS's Refuge Manager. When I first met him I didn't know

he was the manager because he was so humble and down to earth. It was only after a couple of days at the refuge that I realized he was the manager. He was friendly, helpful and made sure I was comfortable in my Refuge bunkhouse. He was the man who signed my application documents and who took ultimate responsibility over the whole internship. I would like to appreciate the fact that there are good people like Ron that opportunities are given to deserving people in the world making their future brighter and having the opportunity to grow and partake wonderful experiences.

Everyone at the Refuge made me feel at home and like I was part of the whole family. I would like to give heartfelt appreciation to the USF&WS for giving me this opportunity to learn, grow and meet wonderful people I will never forget.

I would like to thank Lee Blaser and Ashlee Jackson with the US Forest Service International Program in Washington, DC. These kind professionals not only sponsored my Internship Program but also helped and guided us through the application process. I cannot forget to give thanks to Dan Hayman with the Public News Service, who interviewed me and produced a very nice radio segment about my Internship.

Working with CASRI was very eye opening and a learning experience. I was able to attend CASRI meetings and all I can say is that the kind of conservation work they do is serious stuff. I learned a lot working with this collaborative and would like to thank all CASRI members for giving me this rare opportunity to work with so many professional intellectuals.

I especially enjoyed working with Andrea Brandon, Mike Powell, Victoria Wolz, and Keith Fisher from The Nature Conservancy. I enjoyed spending time on the Lambert Run Restoration project with Shane Jones, Wildlife Biologist on the Monongahela National Forest. Chip Chase, owner of White Grass Ski Touring Center

is one of the outstanding people you do not forget in life! He is full of life and spirit, so personable and very generous. He is a great musician and showed me around many of the great places in Canaan Valley. He assured me that life is never that serious because you need to create memories.

Looking back on the experience now, I realize how much fun to work with everyone was, but I must agree the whole opportunity was just magical to me. It would bring joy in my heart sharing more experiences with these amazing people. Perhaps Oliver



**Plantling red spruce trees with The Nature Conservancy at Gandy Ranch**

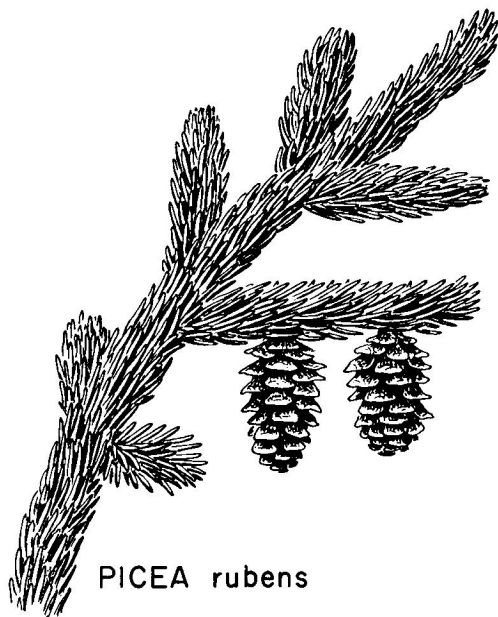
Wendell Holmes said it best, "A mind that is stretched by a new experience can never go back to its old dimensions."

Home; is it the place where you live? Or the place where you belong? I graduate from the University of Nairobi next year and as I start down that Country Road of life, I can't help but believe that it will one day, indeed, take me Home, back to West Virginia. Thanks to everyone who made me feel like I belonged.



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The McFerrin children (Katherine sitting sensibly on the ground and Samuel trying to give his father a heart attack) and a friend at Coopers Rock State Forest.



# PRODIGIOUS WOOD CONSUMPTION IN WEST VIRGINIA'S EARLY IRON-MAKING FURNACES

By Judy Rodd and Paul Salstrom

*I enjoyed John McFerrin's article on page 12 of the October 2015 Voice about visiting the old Henry Clay iron-making furnace in Coopers Rock State Forest. In case Voice readers might want to know more about the prodigious wood (charcoal) consumption of those early iron-making furnaces, here's a description Judy Rodd and I wrote. — Paul S.*

Two hundred years ago when iron-making flourished in the area just east of Morgantown, most of that industry's workers didn't work with iron *directly*. Instead they cut wood, or made charcoal, or gathered limestone or iron ore -- or else worked as teamsters transporting those iron-making ingredients to places like the Henry Clay Furnace now in Coopers Rock State Forest. Sometimes the woodcutters would outnumber all the other categories of workers combined.

Operating an iron-making furnace required only ten or twelve workers at the actual furnace site. A 'founder' supervised the operation there. The furnaces stayed 'in heat' around the clock, so a 'keeper' had to be in charge on site whenever the founder was absent. Every ten or twelve hours, the founder or keeper 'tapped' the lowest outlet of the furnace to release a flow of molten iron.

Two or three 'molders' were also needed. They prepared the damp sand at the mouth of the furnace so the flow of molten iron would be shaped into 'pigs,' 'piglets' and other castings as needed. Whenever the furnace was tapped, those 'molders' channeled the outflow of molten iron. If they couldn't channel *all* the molten iron, they had to ladle the rest into the 'pigs' or castings while the iron was still liquid hot. A makeshift shed usually covered that casting area at the furnace mouth.

Some other workers at the furnace were called 'fillers.' Two or three 'fillers' poured wheelbarrow loads of iron ore, charcoal, and limestone into the top of the furnace every half hour to forty-five minutes, whenever the founder or keeper said to. Those ingredients weren't mixed together but were poured down into the furnace separately -- charcoal first, then iron ore, then limestone.

Two or three less skilled 'furnace

hands' tapped the furnace's upper outlet (its slag outlet) about twice a day to drain off the liquid slag floating on top of the molten iron, and after the slag cooled they hauled it off and dumped it nearby. Those less skilled 'furnace hands' were also called on when the other workers needed help.

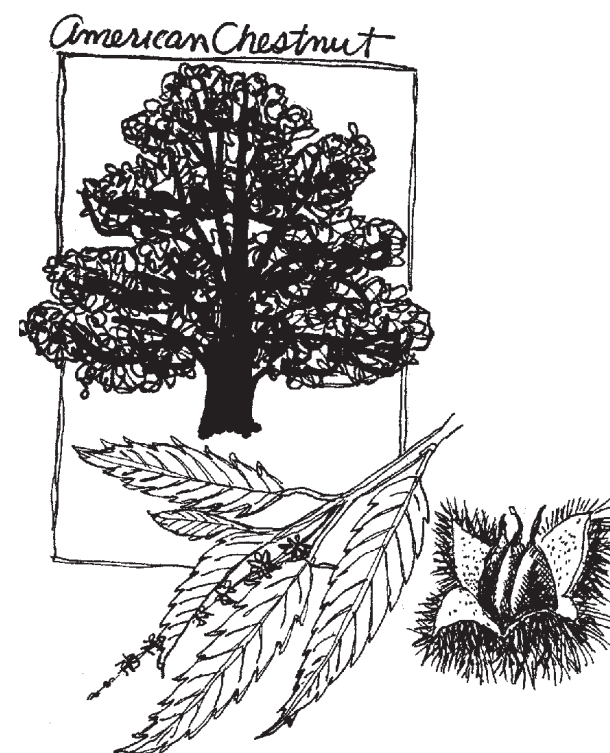
Stronger iron could be made by using coke as fuel rather than using charcoal. Charcoal is baked wood but coke is baked coal. Using coke to make iron had started in England by the mid-1730s, but it didn't start in [West] Virginia's Cheat River area till over a century later, in 1843, and even then its adoption was slow. Usually the carbon part of the 'charge' poured down into local furnaces was still charcoal until the 1850s.

Now about the prodigious wood consumption: Charcoal-making season ran from May to late October. The trees it used had been cut and stacked into cords the previous winter. Each May, charcoal making resumed. The colliers (as charcoal makers were called) constructed large piles of vertically-stacked four-foot logs, all leaning toward the center -- leaning more and more inward as the pile rose higher. The logs ranged in diameter from seven inches down to just one-and-a-half inches. Logs of varied thickness were placed at different locations in the pile and some logs were laid horizontally between the tiers as the pile rose higher. The piles were built up to fourteen feet high and up to forty feet in diameter. Large piles contained as many as fifty cords of wood. They were constructed outward from an open chimney that ran up through their center to vent out the smoke. After all the logs were on, the pile was covered with a few inches of dry leaves which were packed down with an inch or two of dry dirt. Then a flame was lowered down to the bottom of the 'chimney' and the pile was allowed to smolder and char for up to ten or even fourteen days, finally leaving a large pile of charcoal which, as it cooled, had to be carefully raked out and placed in wagons to go to a furnace.

A typical iron furnace consumed, daily, almost an acre of forest in the form of charcoal. A typical forested acre yielded about sixteen to twenty-two cords of wood. Clear-cutting prevailed. After twenty-five to forty years of re-growth, a forest tract could be clear-cut again to yield more charcoal. At

the well-documented Hopewell Furnace in eastern Pennsylvania, five to six thousand cords of wood per year were required to keep the furnace 'in heat.' That much wood required clear-cutting more than 200 forest acres annually.

Besides charcoal, early iron making required three other ingredients: iron ore, limestone, and air. As mentioned, the charcoal, iron ore and limestone were poured alternately down the top of the furnace. Those three ingredients were the 'charge.' Meanwhile, the *air* entered near the bottom of the furnace from the side through 'tuyere' openings. Air was blown into the furnace in alternating 'blasts' propelled by a pair of bellows (--up to twenty-five feet long) that were powered by an overshot water wheel. Yet better, during the early 1800s more and more furnace operations replaced their twin bellows with two large wooden cylinders called 'blowing tubs' that lay horizontally, with a large air-pushing piston inside each 'tub.' The piston was yanked back and forth by either a waterwheel or a steam engine, and the two tubs' pistons were timed to blow alternating gusts of air into the furnace through the 'tuyere' openings. Until much later, those 'blasts' of air entering the furnace were 'cold' air, including at the Henry Clay Furnace built in 1838. Blasts of hot air were more effective but were still in the future in northern [West] Virginia.



# 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-XXL [Shirts run large for stated size.] \$18.50
- Order now from the website!
- Or, 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

## 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