



The Highlands Voice

The Monthly Publication of the West Virginia Highlands Conservancy

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BULLPUSH MOUNTAIN...THE NEXT STEP

By Cindy Rank

Our most recent legal challenge involving water pollution from coal mine sites in West Virginia concerns the very first mountaintop removal coal mine in West Virginia – the Bullpush Mountain operation on the Kanawha - Fayette County line above Smithers, WV.

With a permit to mine granted in 1970 to Cannelton Industries, the original acreage was mined by Perry and Hylton, Inc. Bullpush Mountain was leveled and according to the permit the postmining land use was to be a residential community of over 2,000 acres.

In 2005 this permit area was transferred to and included in a larger permit area held by another company (Jacks Branch Coal Co.). WV DEP granted final bond release for the original acreage four years ago (April, 2008). All coal removal activities have ceased in that area and the mine site has been 'reclaimed'. Boone East Development Company currently controls and/or owns the previously mined and permitted area.

However, recent water sampling shows high levels of both selenium and conductivity in water discharging from the Bullpush mountaintop removal site and entering Smithers Creek of the Kanawha River not far downstream from Gauley Bridge.

WHO IS RESPONSIBLE FOR THE WATER?

So, who is responsible for the water and water quality running through and off this old mine site?

That may seem like a simple question with a simple answer. If you or I have pollution running off our property we are legally responsible.

In the case of mining operations the West Virginia Highlands Conservancy has consistently argued for and urged strong enforcement of both the Surface Mine Act (SMCRA) and the Clean Water Act (CWA) and has often had to resort to litigation in an attempt to hold various coal companies and others accountable for the quality of water coming off mine sites – old and new.

Since at least the late 1970's when I joined the WV Highlands Conservancy the organization has held repeatedly that mine operators/companies whose activities result in discharges of pollutants (acid mine drainage, iron, aluminum, manganese, selenium, any combination of salts that cause reduction in aquatic life of streams, etc.) are responsible for controlling and treating their discharges to prevent ongoing pollution.

We've been to the WV Supreme Court and to Federal Court to affirm our belief that reclamation under Surface Mine Act and the Clean Water Act includes not only putting the land back in stable and usable condition, but also assuring that discharges from those sites don't pollute our waterways. ... And we've won.

We've gone to court first and foremost to hold the mining companies responsible for clean-up and preventing future violations of permit limits and water quality standards in receiving streams.And we've won.

We've appealed to the WV Environmental Quality Board and gone to federal court to require West Virginia Department

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Ramblin' the Ridges

By Cynthia D. Ellis

~MOTHER~

She cradled a young miner's head in her lap. Mortally wounded, his head bashed by a mine detective while on the picket line, he murmured the name of the one he thought he saw, "Mother." Thus--- according to some--- did Mary Harris Jones become "Mother" Jones.

Labor activist Mary Jones's interest in the rights of miners and all working folk came from her childhood. It is alternately said that her family left their native Ireland due to the potato famine---or due to the workers' rights activities of her father.

Mary had training as a teacher and as a seamstress and spent time working at both. But when her shop and all possessions were lost in the Great Chicago Fire, she turned to labor organizing full time. Mother Jones worked to improve conditions for railroad workers, coal and copper miners, textile and garment workers, brewery bottle washers, street car workers, maids and child laborers. She co-founded the International Workers of the World and lent much of her energy to the United Mine Workers. As the years and list of people and places she helped accumulated, Mother Jones cultivated a matronly manner and antiquated dress; black with lace at collar and cuffs, and sturdy boots beneath; a sweet face and stature of only five feet.



But her speeches and actions were anything but quaint. She had a sharp tongue, ready wit, and a charismatic way. If her "boys" couldn't be reasoned or cajoled, Mother Jones would unleash scorn and sarcasm. "I have been in jail more than once and I expect to go again. If you are too cowardly to fight, I will fight!" And, "Boys, always remember you ain't got a damn thing if you ain't got a union!" In 1902, she was accused, by West Virginia district attorney Reece Blizzard, of being "the most dangerous woman in America." Doggedly persistent, she returned to the mountain state many times, and was noted for organizing a march of miners' children through Charleston on September 21, 1912. She was arrested in connection with the Paint Creek/Cabin Creek strike here in that year also and

(More on p. 11)

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BOARD HIGHLIGHTS

By John McFerrin

The Board of Directors of the West Virginia Highlands had its spring meeting at Blackwater Falls State Park on April 22.

We had the usual businessy reports: Frank Young (pinch hitting for the absent Robert Marshall) reported on the state of the treasury. We are 25% of the way through the year and are at about 25% on revenue and at less than 25% on expenses. Cindy Rank relayed a message from the membership secretary that she had had cataract surgery. One eye did fine but there were complications on the other one so she is out of whack right now. She will do a report as soon as she is back in whack. She did report that she has changed the membership form so that getting an electronic Voice is now listed as an option. She also wants to get suggestions for places where she could arrange for bulk distribution of the Voice.

Webmaster Jim Solley reported on the web site. We are going to expand the offerings that are available through the website store by adding a WVHC polo shirt and possibly a WVHC onesie

Under old business, we discussed endorsing the work of the Potomac Highlands Cooperative Pest Management. Its mission is to eliminate invasive species of plants from public lands. We had had a presentation about it at an earlier meeting and tabled a motion to endorse its work because it used herbicides. There was no great enthusiasm for moving it toward passage and our ambivalence about herbicides remained so we took no action.

The major discussion was about our policy on industrial scale wind energy. Nobody seemed satisfied with the state of our present policy; all seemed to agree that some new policy was needed. The discussion resolved mostly around the process for seeking membership input on the wind policy, although there were some dissenting opinions. The results of the discussion appear in the stories on page 7 of this issue of The Highlands Voice.

In outreach, President Cindy talked about our Facebook page. Ken James, a member in Virginia, had set up a page for us. He had also put up an ad which directs people to that page. Now we have lots of people looking at it. It looks a lot like our web page.

Cindy Rank presented a report on coal, including various litigation in which we are involved.

Frank reported on the PATH transmission line. At the last meeting he had reported that the application has been dismissed and the project is dead. As part of the process, the company had

also applied to cross National Park Service and Forest Service land. Those applications have now been dismissed. The only place it is still alive is at the Federal Energy Regulatory Commission. The company is trying to keep up the appearance that it is a viable project. It wishes to keep including the expenses of PATH development in its expenses. The larger the expenses the higher rates it can justify.

Beth Baldwin reported on T.E.A.M. and the activities by the long wall mine that plans to undermine a large fraction of Taylor County. The company has clearcut and scraped bare about fifty acres where the mine face and the preparation plant will be. Trucks bringing materials to the area, hauling dirt, etc. are a major irritant. T.E.A.M. is now trying to do a new round of background water testing.

We had reports on both matters legislative and on highways that just referred to articles in the April issue of The Highlands Voice.

In activities only tangentially related to the business of the meeting but directly related to fun, President Ellis held a drawing for the door prize, a copy of Cerulean Blues: A Personal Search for a Vanishing Songbird by Katie Fallon. In a random drawing, Beth Baldwin won. Demonstrating panache previously absent in WVHC presidents, Cindy Ellis closed the meeting with a dramatic reading of The Lorax.



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The Highlands Voice is always printed on recycled paper. Our printer uses 100% post consumer recycled paper when available.

The West Virginia Highlands Conservancy web page is 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.

MORE ABOUT BULLPUSH MOUNTAIN PLANNED COMMUNITY (Continued from p. 1)

of Environmental Protection to include appropriate effluent limits in water discharge permits for mining operations And we've won.

We've gone to court to hold the regulatory agency responsible when companies have gone bankrupt or otherwise deserted the mine operations before they were complete, thus forfeiting bonds to the state for its use in completing reclamation as required by law. ... And we've won.

We've gone to court to assure the State of West Virginia will be subject to the requirements of appropriate water discharge NPDES permits at those forfeited mine sites where the state has the responsibility to treat water ... And we've won.

We've gone to court to insist the bond program be strengthened and the bond amounts and reserve bond pool (Special Reclamation Fund) be increased to provide monies sufficient enough for the state to fulfill its legal responsibility performing reclamation at these sites ... and we've won.

We've gone to court to urge the federal Office of Surface Mining to take over the portion of the WV Regulatory Program that enforces the Bonding provisions of the Surface Mine laws. --- Well, that one is still pending.

And now with the Bullpush/Boone East Development complaint we are attempting to address another layer of responsibility – the land owner.

As stated above, WV Department of Environmental Protection released the company from its bond several years ago, but recent water testing has shown an unacceptable amount of selenium and other salts are still discharging from the old mine site property.

We're now asking the court to enforce the Clean Water Act by requiring the current land owner to control the pollution and to abide by a permit to discharge – a permit that includes effluent limits sufficient to ensure compliance with the state and federal water quality standards.

So, who is responsible for the water coming from mine sites?

It is the belief of the plaintiffs and our attorneys in this lawsuit that assuring that reclaimed mine sites don't pollute our water resources continues to be a responsibility of

the land owner – whether that be the coal company that mined in the first place, or the state in its stead, or whoever maintains ownership after the mining is done.

Post Script re: Post Mining Land Use

Though not an issue in this particular CWA law suit, mention of Bullpush wouldn't be complete without some further comment



Bullpush Mountain Planned Community

(Most houses, churches, schools, shopping, medical facilities, and light industry disguised as scraggly, dead grass)

about the post mining land use (PMLU) originally planned and permitted for the flattened mountain.

Not unlike the more detailed WV state regulations for the "Homestead" post mining land use delineated in our settlement with WV DEP in the Bragg case back in 1999, the Bullpush plan called for a self contained community with churches, schools, shopping, medical facilities, and light industry.

The Fall 1980 issue of the glossy coal industry magazine Greenlands boasted about Bullpush Mountain and included a layout of the proposed "planned community". The proposed "planned community" was to cover "over 2000 acres and accommodate 10-12 thousand people."

[Thanks to Ken Ward of the Charleston Gazette for retrieving a scanned copy of the Greenlands article out of his files and providing a link to that article as well as other past articles in his Coal Tattoo blog of April 17, 2012. <http://blogs.wvgazette.com/coalattoo/2012/04/17/bullpush-mountain-public-health-and-epa-attacks/>.]

Highlands Voice editor John McFerrin

served on the 1998 Governor's (Cecil Underwood) Task Force on Mountaintop Removal Mining. Referring to Post Mining Land Use he repeatedly reminded committee members and wrote again in his minority report of one at the close of the Task Force, that the Surface Mine Act envisioned more detailed development plans and upfront commitments for such "residential" PMLU to be acceptable. Also envisioned as needed for success was accessible infrastructure, roads, electricity, water, and the like as well as proximity to population centers.

If any residential development on a mountaintop removal site could have a realistic chance of succeeding, one might have guessed Bullpush Mountain would be an ideal experiment. Up the mountain but not far from the Kanawha River and Rt 60 that runs along the River, Bullpush is not quite 25 miles from Charleston and just west of Gauley Bridge and the amazing Kanawha Falls where the Gauley joins the New to become the Kanawha River.

It's interesting to note that the Bull Push Mountain property is still 'listed' on the WV Department of Commerce website as available in Fayette County....

<http://www.wvcommerce.org/business/siteselector/listing/Bull-Push-Site/10327/default.aspx>

But, as Ken Ward reported back in 1998, and again in Coal Tattoo April 17th, and apparent to any visitor to Bullpush today, nothing really came of the community planned for Bullpush Mountain.

Even as far back as 1970 the coal industry's mantra about WV needing more flat land had begun in earnest. If only due to increased media attention about the lack of development on these lands, there are a few more sites that are being developed today. But for the most part, now some 40+ years later, that 'field of dreams' continues to grow into many thousands of acres and yet has yielded less reality than fantasy.

[Plaintiffs WV Highlands Conservancy, Ohio Valley Environmental Coalition and Sierra Club filed the Boone East/Bullpush lawsuit in the U.S. District Court for the Southern District of West Virginia, and are represented by Jim Hecker with Public Justice, and by Joe Lovett and Derek Teaney with Appalachian Mountain Advocates.]

DEPARTMENT OF THE INTERIOR ISSUES WIND GUIDELINES

By John McFerrin

The United States Department of the Interior has issued the *U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines*. According to the Department's press release, these voluntary guidelines are supposed to "help wind energy project developers avoid and minimize impacts of land-based wind projects on wildlife and their habitats. The voluntary guidelines will help shape the smart siting, design and operation of the nation's growing wind energy economy."

The Guidelines recognize the threats to wildlife posed by wind turbines. These impacts include threats to "migratory birds; bats; bald and golden eagles and other birds of prey; prairie and sage grouse; and listed, proposed, or candidate endangered and threatened species."

The Guidelines are supposed to address these threats:

- Collisions with wind turbines and associated infrastructure; loss and degradation of habitat from turbines and infrastructure;
- Fragmentation of large habitat blocks into smaller segments that may not support sensitive species;
- Displacement and behavioral changes; and
- Indirect effects such as increased predator populations or introduction of invasive plants.

The idea of the Guidelines is to encourage developers to consult with the U.S. Fish and Wildlife Service early in the planning of the wind farm. The Fish and Wildlife Service can then work with the developer to help plan, site, and develop the operation in a way that helps avoid the threats that are possible at an industrial wind site. The guidelines also provide for data collection, including fatality monitoring, after the wind turbines are installed to determine gather data on how the Guidelines are working.

The Fish and Wildlife Service is involved in this issue because of its general duty to promote and protect the interests of wildlife. More specifically, it is involved because it is supposed to enforce as the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act and the Endangered Species Act. The voluntary guidelines are supposed to help developers identify additional steps, review processes and permits that may be needed to ensure compliance with these acts. If the project may affect one or more species protected by the ESA or their habitat, for example, developers may need to develop a Habitat Conservation Plan and apply for an Incidental Take Permit.

The Guidelines also provide Best Management Practices for site development, construction, retrofitting, repowering, and decommissioning.

The Guidelines are voluntary. While having followed them might help a developer who later runs afoul of the law, failing to follow them doesn't result in anything unpleasant happening to a developer. The Guidelines say:

Adherence to the Guidelines is voluntary and does not relieve any individual, company, or agency of the responsibility to comply with laws and regulations. However, if a violation occurs the Service will consider a developer's documented efforts to communicate with the Service and adhere to the Guidelines.

The issuance of the Guidelines has produced some controversy; most of it comes from the fact that they are voluntary.

Audubon takes the position that these guidelines are a worthwhile step forward. Its view is that a cooperative approach in planning and siting wind turbines will result in superior wildlife

protection than what had been a more combative approach in the past. It describes the Guidelines as "a game-changer and big win for both wildlife and clean energy."

The American Bird Conservancy is not so sure. It points out that The U.S. Fish and Wildlife Service estimated that in 2009, the wind industry was killing about 440,000 birds per year. With the Federal Government targeting a 12-fold increase in wind generated electricity by the year 2030, annual bird mortality is expected to increase into the millions absent meaningful changes in the industry. Species of conservation concern appear to be particularly at risk including the Golden Eagle, Greater Sage-Grouse and the endangered Whooping Crane.

The American Bird Conservancy does not think that voluntary guidelines are the way to address these threats. It points out that the guidelines allow companies to decide whether or not they will comply.

They also provide companies with a tool to avoid prosecution under regulatory statutes which are mandatory. Should a developer violate such statutes as the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act and the Endangered Species Act having consulted with the Fish and Wildlife Service during the development of the project would be considered by the Service in determining whether prosecution is warranted.

The ABC finds this discouraging in light of the Fish and Wildlife Service's past record of reluctance to prosecute. It points to a wind farm in California which is estimated to have killed over 2,000 eagles without any prosecution of anyone.

To download a copy of the final guidelines and for other background information on the Fish and Wildlife Service's role in wind energy development, please visit <http://www.fws.gov/windenergy/>.



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The Monongahela National Forest Hiking Guide

By Allen de Hart and Bruce Sundquist

Describes 180 U.S. Forest Service trails (847 miles total) in one of the best (and most popular) areas for hiking, back-packing and ski-touring in this part of the country (1436 sq. miles of national forest in West Virginia=s highlands). 6x9" soft cover, 368 pages, 86 pages of maps, 57 photos, full-color cover, Ed.8 (2006)

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Board Calls for Opinions Based on Facts**INDUSTRIAL WIND -- CRITICAL THINKING NEEDED**

By Wayne Spiggle

"Nearly half of our electricity comes from coal, 30% of that from Appalachia. Mountain top removal has destroyed 500 mountains, a million acres of forest and 2000 miles of streams. The cost to health and the environment comes to 345 billion dollars annually".-- George Beecham, PBS Presents

I believe we all accept this statement. Multiple studies and factual information stand behind it. Coal mining, particularly by mountain top removal and long wall methodology, is a pox on our mountains that will subvert the health and welfare of generations to come. Recent moves of the Environmental Protection Agency to more carefully control coal combustion pollutants deserve our appreciation and active support.

Many of my friends are convinced that the answer to coal is swaying in the wind. Industrial scale wind advertising has popularized the assumption that wind is environmentally friendly and can replace coal, answering the challenge of global warming.

In an October 2010 briefing for President Obama, then Secretary Larry Summers lays out a scenario that commercial wind can reduce carbon combustion, but the cost to the public is very great. Using the 845-megawatt, \$1.9 billion Shepherds Flat project in Oregon as an example, the report cites a public cost of \$1.3 billion while the developer "would provide little skin in the game (equity about 10%)." The briefing calculates 18 million fewer tons of CO2 emissions through 2033. "Carbon reductions would have to be valued at nearly \$130 per ton CO2 for the climate benefits to equal the subsidies. More than six times the primary estimate used by the government in evaluating rules.)"

Does the government assumption that industrial scale wind can reduce carbon combustion make it so? Some think so and some think not. Members are invited to share what they consider to be verifiable facts on this matter.

And even though the industry says industrial scale wind is "free and clean" does that make it so? The American Bird Conservancy says not. Quoting United

States Fish and Wildlife studies the ABC predicts that by year 2020 over one million birds will be slaughtered each year by turbines unless they can be sited where the birds aren't present. They are petitioning the Federal Government for rule making that will ask for turbine installation to be limited to "bird smart" areas. Others claim that the extraordinary acreage consumed by the installations and transmission infrastructure will change forever what we mean when we sing "The Beautiful WV Hills". Many discount this as a concern.

The PJM Grid has studied summertime wind in the Highlands and reports a 13% efficiency: "Currently effective class average capacity factors are 13% for wind and 38% for solar units." --PJM Manual 21, May, 2010: Wind Efficiency as rated by the PJM.

What does that mean for the ability of Appalachian commercial wind to live up to the large amount of electricity generation each existing installation has promised? How many acres of highland forests are we going to lose over the next couple of decades? How should we protect our Highlands?

This is the main question that faces your West Virginia Highlands Conservancy Board. So it is that the board wants more information.

WVHC is a membership organization and we turn to our membership in the process of making policy. We are asking you to say to yourselves, "This is how I feel, but what facts do I have to support how I feel? And please, while this is an opportunity for the Board to be heard by the membership, it is not the place to be mean spirited. Unfortunately, that has happened in the distant past and we all expect it not be repeated. Opinion backed up by verifiable fact will be taken respectfully and seriously.

Send us a post card, drop us a line, stating point of view

Please email any poems, letters, commentaries to the VOICE editor at johnmcferrin@aol.com or real, honest to goodness, mentioned in the United States Constitution mail to WV Highlands Conservancy, PO Box 306, Charleston, WV 25321.

INDUSTRIAL WIND POWER: WHAT SHOULD THE BOARD DO?

For years the West Virginia Highlands Conservancy has been conflicted about industrial wind power. Although nothing is certain in this debate, it is probably safe to assume that most of us began the discussion wanting to believe that wind power would be good for West Virginia. Coal mining was such a scourge upon the land and water that wind power just had to be better.

Over the years the Board has taken various positions, none of which were entirely satisfactory to anybody. One of the ways to fill *The Highlands Voice* with letters to the editor is to publish something either strongly favoring or opposing wind power.

One of our organizational members is the Allegheny Highlands Alliance. It is dedicated to, among other things, studying the available evidence on industrial wind power and following that evidence wherever it leads. If it leads to supporting wind power then that is the Alliance's position. If it leads in the opposite direction, then that is the Alliance's position. It is probably safe to say that the more the Alliance's members have studied the issue the more they have moved toward the conclusion that industrial wind power would not benefit West Virginia.

Now the Board is embarking on an effort to arrive at a more satisfactory position on industrial wind power. The accompanying article is a start. Over the next few months the Board hopes to present the evidence on wind power. It hopes that the membership will chime in, offering its own evidence and perspective. Everyone is free to participate through articles, letters to the editor, whatever. At the end of it all the Board hopes to use the information to arrive at a sensible policy on industrial wind power in West Virginia, particularly the West Virginia highlands.

THE WV BREEDING BIRD ATLAS II: A CONSERVATION TOOL

By Casey Rucker

The 5-year West Virginia Breeding Bird Atlas II project is past its midway point, with more than 48,000 records submitted and 172 species reported. Many birdwatchers are already familiar with the atlas project, but other nature lovers may not be aware of its importance, or how easy it is to contribute.

The atlas is an attempt to document the locations and abundance of the birds who breed anywhere in West Virginia. The atlas divides the state into blocks, named after and based on USGS 7.5 minute topographic maps. Each block is one-sixth of a topo quad, divided in half from side to side and in thirds from top to bottom. West Virginia's Division of Natural Resources (DNR) designates 469 of the state's 2,766 blocks as "priority" or "special" in order to narrow observers' focus to a representative sampling of the state's habitats. The West Virginia highlands, because of their unusual habitats, sport a high concentration of special and priority blocks.

Observers identify evidence of the "possible", "probable" or "confirmed" breeding status of each bird they report. Since most birds are seasonal breeders, the DNR has set "safe dates" for each species known to breed in West Virginia. Observations must be made within the safe dates unless the bird was engaged in probable or confirmed breeding activity, such as persistently singing in breeding territory, carrying nest materials or feeding young.

The observations recorded in the atlas will provide science and our society with more evidence of West Virginia's riches in birdlife. Since this will be the second atlas, it will also provide valuable new data about changes in breeding bird ranges and populations throughout our state. With nearly all bird species suffering population declines, it is important to have as good a record as possible of what we are already losing. Changes in breeding activity can also serve as indicators of climate change. Not only will biologists use the data from the atlas for decades to come, but also land managers, politicians and even plaintiffs in conservation lawsuits. One of the most important ways to protect our wild lands against threats as diverse as windmills, mines and hydraulic fracturing is to document the lands' biological importance.

Because we have so much bird life to protect in our state, it is vital that we obtain as complete coverage as possible throughout our state. West Virginia's standing as a treasure trove of avian diversity puts

another powerful argument in the hands of local conservationists.

Surveying for the atlas can be personally illuminating too. Last summer, I spent many hours as an atlas volunteer tramping through the recovering forests of the Monongahela National Forest on Canaan Mountain south of Davis and in Blackwater Falls State Park. I found an amazing density and diversity of bird species in those protected lands. In contrast, I also surveyed birds in the Tuscan Ridge development south of Davis. This speculative real estate development devastated a large forested area by building roads and clearing dozens of homesites, only to go bankrupt and abandon the property to foreclosure. I discovered that the invasion of the bulldozers had created a virtual wasteland for birds, practically overnight. It gave me a painful insight into the brainlessness of the unregulated assaults real estate speculators are still making on our forests.

As a birdwatcher for twenty years, the atlas project has also given me a chance to be useful as I pursue a hobby that can be frivolous or even downright selfish. I'm grateful to be able to use the skills I've developed while birding for pleasure in the service of science and conservation.

Anyone who has a computer can contribute to the atlas. For instance, it doesn't take an expert to recognize a robin flying with a worm in its bill, which would constitute a confirmed breeding record. A rarer record would be that Common Merganser with chicks that you saw while kayaking the Cheat, or the pair of Bald Eagles that circled over you on that hike in the Sinks of Gandy. And each record is important, no matter how common the species. Remember the Passenger Pigeon?

It's easy to use the atlas website, at <http://martes.dnr.state.wv.us/BreedingBirdsAtlas/default.aspx>. The website provides for easy registration and submission of records, as well as helping identify the block location of your bird sightings. There is also a wealth of information on the website from results so far. If you know someone who already contributes to the atlas, you can also just tell that person about your sighting and make him or her do the work! It takes just a little time and effort to help protect our feathered friends, and along with them the fragile ecosystems of our beloved state.



***A happy Mothers' Day to
you and yours!***

ENVIRONMENTAL PROTECTION AGENCY ISSUES RULES ON AIR POLLUTION FROM GAS WELLS

On April 17, 2012, the U.S. Environmental Protection Agency issued regulations, required by the Clean Air Act, to reduce harmful air pollution from the oil and natural gas industry. The include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other sources of pollution in the oil and gas industry that currently are not regulated at the federal level.

The Environmental Protection Agency predicts that the new rules will result in a nearly 95 percent reduction in volatile organic compounds emitted from more than 11,000 new hydraulically fractured gas wells each year.

EPA estimates the following combined annual emission reductions when the rules are fully implemented :

- o Volatile organic compounds: 190,000 to 290,000 tons;
- o Air Toxics: 12,000 to 20,000 tons; and
- o Methane 1.0 to 1.7 million short tons [about 19 to 33 million tonnes of CO₂ equivalent (CO₂e)]

EPA predicts that the volatile organic compounds and air toxics reductions in the rules will improve outdoor air quality, protect against cancer risk from air toxics emissions and reduce health effects associated with exposure to ground-level ozone (smog). Air toxics are pollutants known or suspected of causing cancer and other serious health effects

Exposure to ozone is linked to increased asthma attacks, hospital admissions and emergency room visits, and premature death.

The rules also would yield significant reductions in methane, a potent greenhouse gas. EPA's Regulatory Impact Analysis for the rule estimates the value of the climate co-benefits that would result from this reduction at \$440 million annually by 2015. This includes the value of climate-related benefits such as avoided health impacts, crop damage and damage to coastal properties.

This significant reduction would be accomplished primarily through the use of a proven process – known as a “reduced emissions completion” or “green completion” -- to capture natural gas that currently escapes to the air. The rule would also would protect against potential cancer risks from emissions of several air toxics, including benzene.

Flareless or “green” completions reduce flaring and venting of natural gas. Before natural gas and coalbed methane wells begin producing gas for sale, the well bore and surrounding reservoir must be “cleaned up” (i.e., any fluids, sand, coal particles, or drill cuttings within the well bore must be removed). The conventional method for doing this is to pump air down the well bore, which lifts the waste fluids and solids out. The solid and liquid waste materials are then dumped into a pit or tank, and any gas that is removed is flared or vented to the atmosphere. In some flareless or green completions, natural gas, rather than air, is pumped down the well bore to clean it out.

In flareless or green completions the gas that comes to the surface is separated from fluids and solids using a series of heavy-duty separators (sometimes referred to as “flowback units”). The water is discharged to tanks to be reused, the sand is sent to a reserve pit, and the gas is either cycled back through the well bore, or sent to a pipeline to be sold rather than vented or flared. According


to the U.S. Environmental Protection Agency , benefits of this system include the elimination or reduction in venting or flaring of natural gas; sale of the gas and condensate provides the operator with an immediate revenue stream; there is a reduction in solid waste and water pollution; and the system enables safer operating practices.

Green completion systems have a potential cost savings. By using portable equipment to process gas and condensate, the recovered gas can be directed to a pipeline and sold. These truck or trailer mounted systems can typically recover more than half of the total gas produced. Industry results have shown that investment in portable three phase separators, sand traps and tanks can be recovered in 2 years or less.

Some advocates have suggested that West Virginia adopt rules that would require green completion. While West Virginia has not adopted such rules, other states have done so. It is already standard practice in some formations in some states.

EPA estimates that the net cost of compliance with these new rules will be less than zero. Under current practice, a substantial volume of marketable gas either escapes into the atmosphere or is burned. By using “green completion” techniques, companies capture and sell this product. The value of the product is expected to offset the costs of compliance with the new rule. EPA's analysis of the rules shows a cost savings of \$11 to \$19 million when the rules are fully implemented in 2015.

T- SHIRTS

White, heavy cotton T-shirts with the  **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 \$12 by mail; **long sleeve** is \$15. West Virginia residents add 6% sales tax. Send sizes wanted and check payable to West Virginia Highlands Conservancy ATTN: James Solley, WVHC, P.O. Box 306, Charleston, WV 25321-0306.

Voice Available Electronically

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 Beth Little at blittle@citynet.net. Electronic copies arrive as e-mail attachments a few days before the paper copy would have arrived

West Virginia Mountain Odyssey



Outings, Education and Beyond

05/02-03/2012, George Washington National Forest, VA, Massanutten South Backpack Shuttle: 18 miles featuring views and pretty streams w/ a couple of steep climbs and descents. Some forest road walking required. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

05/19/2012, Spruce Knob Drive Meet at Spruce Knob Lake parking lot at the dam at 11:00. We will have a little talk about the lake and fishing and ice cover. We will go to a trout stream where we will rig a fly rod and try to catch a native trout. We will go the knob, orient, take a short hike. Finally, a drive to a little virgin forest--departing at 4:00, then to the Potomac with its Seneca Rocks Visitors' Center, or to the Greenbrier South. Or along Gandy Creek to the west. Leader: Don Gasper. (304)472-3704

05/26-28/2012, Jefferson National Forest, VA/WV, Potts Mountain to Bluff City AT Backpack Shuttle: Moderate, 21 miles, 4000 feet of elevation gain with one very steep climb. Hike with one foot in VA and the other in WV while taking in westward views. We will try to set up a shuttle with our trail angels in Pearisburg (small fee). Seasoned backpackers only. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

06/09-11/2012, Jefferson National Forest, VA/WV, Allegheny Trail/AT-Peters Mountain Section: 25 miles, 5000 feet elevation gain. Continue the traverse of the VA/WV border as we hike this isolated ridge top. Seasoned backpackers only. Shuttle cost approximately \$35.00/person depending on the number of participants. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

06/20-21/2012, George Washington National Forest, VA, Massanutten Trail-Edinburg Gap to Mud Hole Gap Backpack Shuttle: 16-19 miles, 2000 feet elevation gain. Rocky ridge walk with views. Seasoned backpackers only. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

07/07-09/2012, George Washington National Forest, VA, Great North Mountain/Elliots Knob Backpack Shuttle: Strenuous 22 mile hike with 5000 Feet elevation gain and a panoramic view from 4463 foot Elliots Knob. Seasoned backpackers only. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

07/21-22/2012, George Washington National Forest, VA, Torry Ridge/Mills Creek Backpack Loop: Moderate, 14 miles, 2600 feet elevation gain. Ridge Top views and a pleasant stream valley to camp in. This trip is suitable for experienced hikers who wish to move up to backpacking. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

08/04-06/2012, Laurel Highlands Trail-Rt 30 to Rt 56 Backpack Shuttle, PA: Moderate, 24 miles through Mature Forest, Vistas. We will camp in shelter areas. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

09/01-03/2012, George Washington National Forest, Shenandoah Trail-South Backpack Shuttle: Strenuous, 25 miles, 5000 feet elevation gain. Ridge top hike with lots of views to the east and west. Seasoned backpackers only. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

09/11-13/2012, George Washington National Forest, VA, Massanutten Trail-Edinburg Gap to Shawl Gap Backpack Shuttle: 23 miles, 4000 feet elevation gain. Rocky ridge walk with views. Seasoned backpackers only. Preregistration required. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

09/22-24/2012, Monongahela National Forest, WV, [Roaring Plains Base Camp Backpack and Day hike](#): Hike in 2.5 miles and set up camp on Day 1. Day hike (no backpacks) 12-14 miles around the canyon rim with 1100 feet of elevation gain on Day 2. Retrace Day 1 steps on Day 3. Seasoned backpackers only. Contact Mike Juskelis at 410-439-4964 or mjuskelis@cablespeed.com.

Open dates: Visit Kayford Mountain south of Charleston to see mountain top removal (MTR) up close and hear Larry Gibson's story about how he saved his mountain, now almost totally surrounded by MTR. Bring lunch for a picnic on Larry's mountain. Call in advance to schedule. Julian Martin (304) 342-8989; martinjul@aol.com or Daniel Chiotos, (304)886-3389 – cell, (304)205-0920 – office.

CYNTHIA D. FINISHES UP (Continued from p. 2)

experienced a long house arrest and bout with pneumonia until the publicity forced a Senate investigation of miners' conditions. That was but one instance of her many detentions and jailings.

The tender feelings of Mother Jones for children and workers had to be influenced by her own deep tragedy. Married at age 24, she was widowed just 6 years later. In 1867 a yellow fever epidemic killed her young husband and took too, every one of their four tiny children. Some of us have seen the moving portrayal of this chapter in her life acted out by Calhoun County artist Jude Binder in her play "Broken Bough." We've watched "Mary" kneel, silently keening, and rocking back and forth as she tries to complete the washing of little bodies and wrapping winding sheets.

Somehow, those deaths, and that devastating fire after she had tried to rebuild her life, served only to make Mary Harris unyieldingly strong, even as she retained a tender heart. She encouraged workers to shape their own fates. "Sit down and read. Educate yourself for the coming conflicts." Elliot J. Gorn noted, "Working families, Mother Jones argued, possessed vast, untapped powers to fight the corporations that bound them to starvation wages and the corrupt politicians who did the businessmen's bidding. But only strong, democratic organizations of citizen-activists, she felt, could achieve real egalitarian change."

She strove on, speaking for the last time at age 85, in 1926, and dying in 1930. At her funeral, with 10-15,000 in attendance, she was lauded by one speaker with these words:

"Wealthy coal operators and capitalists throughout the United States are breathing sighs of relief while toil-worn men and women are weeping tears of bitter grief. The reason for this contrast of relief and sorrow is apparent. Mother Jones is dead."

One testament to her renown was a recording by Gene Autry of "The Death of Mother Jones."

<http://www.youtube.com/watch?v=EDVqPxqW0KA>

In the present day, celebrations will be held in Ireland by the Cork Mother Jones Commemoration Committee, with speakers from America, primarily on August 1, 2012.

This Mother's Day season is a fitting time for us to remember or learn about Mother Jones. Like the real mothers of some of us, if she were here, Mother Jones might give us a hug...or a kick in the pants.

The George Washington National Forest is in the process of banning horizontal drilling for gas in the Forest. This is the technique used in tapping the Marcellus shale formation; banning it would effectively ban drilling in that formation.

The Forest is currently nearing the end of the process of revising its forest plan. This is the same process that the Monongahela National Forest went through in the mid 2000s, resulting in the major plan revision of 2006.

In its draft Environmental Impact Statement, the Forest Service cited "concerns about the impacts of extensive hydraulic fracturing associated with horizontal drilling on water quality, the unknown potential for developing the Marcellus shale formation on the GWNF, and the limited experience with horizontal drilling in the immediate vicinity of the GWNF."

The draft Land and Resource Management Plan contained the ban. The public comments submitted on the draft Plan supported it. Approximately 70% of the Virginia residents who commented supported the ban.

The ban is in sharp contrast to the policy of the Monongahela National Forest. At the time of its Plan in 2006, Marcellus shale drilling, hydraulic fracturing, etc. was uncommon if not completely unknown. The Forest Service has declined to modify its Plan to account for the new information contemplating the possibility of Marcellus shale drilling. For more details, see *The Highlands Voice*, March, 2012, p. 15).

The Forest Service employees for Environmental Ethics has called for a ban on Marcellus shale drilling and the associated hydraulic fracturing in all the national forests where the formation is found. It cites concerns that such drilling "will contaminate surface and subsurface waters, kill forest vegetation and create health hazards for the American public."

BUMPER STICKERS

To get free *I ♥ Mountains* bumper sticker(s), send a SASE to Julian Martin, 1525 Hampton Road, Charleston, WV 25314. 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 Julian know which (or both) you want.



Red Spruce Ecosystem Restoration in Canaan Valley

By Dave Saville

For over 10 years we have been working on a corridor along the Blackwater River in Canaan Valley. Much of it is on the National Wildlife Refuge but important parts are on private properties that adjoin



in two. The Davis & Elkins College students went to the Timberline side to work with the folks from Timberline. The WVU students, led by Jim Kotcon, from the Society of Environmental Professionals and the Student Sierra Coalition, went to the Refuge side of the River along with the rest of the group. Because there was a much larger group on the Refuge side, we finished up planting all 2500 trees by lunch (Sirianni's Pizza and Whitegrass brownies) at 1 pm.

After lunch a group of us walked to the old Timberline bridge to cross the River and helped the Timberline group. By this time it was raining; we finished up planting about 1800 trees on that side of the river, leaving about 700 to plant on Sunday.

Along our walk, we passed 3 stages of plantings from previous years. In one place the trees were all 4-5 feet tall, real bushy, and had a huge presence. Another place they were 3-4 feet tall from a different year's planting. It was amazing to see the results. We have constructed a serious red spruce corridor along the Blackwater River for many miles.

Sunday was a little cooler. Russ McClain brought another group of 16 Davis & Elkins College students and a dozen or so of the WVU students came back so we had about 40 people. The volunteers on Sunday included the WV DNR's Ecologist Elizabeth Byers, Sam Lamie, Forest Service GIS guy, and the new Forest pathologist, Danielle. We got the remaining 700 trees planted and had lunch at the Refuge Headquarters.

Thanks to Highlands Conservancy President, Cindy Ellis, for coming along

the Refuge. This year, we partnered with the Timberline Association, the homeowners group that holds common lands they call their "Conservancy." Some of these lands are along the Blackwater River in the area of our planned corridor. Connecting the many patches of remnant spruce is the goal of this corridor and, on a landscape scale, we partner with a diverse array of public, private and corporate land owners. The Blackwater River corridor through the southern Valley is nearly complete. A final link was completed with this volunteer planting event we held April 21 & 22 celebrating Earth Day!

We had a great turn out, and also, to our surprise, weather! A beautiful, somewhat cloudy day on Saturday, 80+ folks planted about 4,000 trees. The site was along the Blackwater River on the "Beall Tract," and an equal area across the River on the "Timberline Conservancy."

We split the large group

Saturday, and to Marilyn Shoenfeld for organizing the Timberline portion of the project. Great cooperation, organizing and logistical work from the Wildlife Refuge Staff including the newly hired Wildlife Biologist



Addie Berdine, Ashton Berdine and Cindy Ellis

(and acting Manager), Dawn Washington, who headed up things for the Refuge both days, and long-time biologist Marquette Crockett who handled and arranged logistics with the help of several AmeriCorps volunteers. Evan Burks, US Forest Service, helped with a lot of the planning, organizing and overall coordination as well as helping

to get a lot of trees in the ground.

Chip Chase, White Grass Ski Touring Center, helped plant trees, delivered pizzas and generally entertained everyone, not to mention taking dozens of great pics. Cindy Phillips, new Visitor Service Ranger at the Refuge helped and took pics too. Ashton Berdine (TNC) brought his family to help plant trees on Saturday. Thanks to everyone!! An over-all amazing weekend.

WHY TREES MATTER

By Jim Robbins

Trees are on the front lines of our changing climate. And when the oldest trees in the world suddenly start dying, it's time to pay attention.

North America's ancient alpine bristlecone forests are falling victim to a voracious beetle and an Asian fungus. In Texas, a prolonged drought killed more than five million urban shade trees last year and an additional half-billion trees in parks and forests. In the Amazon, two severe droughts have killed billions more.

The common factor has been hotter, drier weather.

We have underestimated the importance of trees. They are not merely pleasant sources of shade but a potentially major answer to some of our most pressing environmental problems. We take them for granted, but they are a near miracle. In a bit of natural alchemy called photosynthesis, for example, trees turn one of the seemingly most insubstantial things of all — sunlight — into food for insects, wildlife and people, and use it to create shade, beauty and wood for fuel, furniture and homes.

For all of that, the unbroken forest that once covered much of the continent is now shot through with holes.

Humans have cut down the biggest and best trees and left the runts behind. What does that mean for the genetic fitness of our forests? No one knows for sure, for trees and forests are poorly understood on almost all levels. "It's embarrassing how little we know," one eminent redwood researcher told me.

What we do know, however, suggests that what trees do is essential though often not obvious. Decades ago, Katsuhiko Matsunaga, a marine chemist at Hokkaido University in Japan, discovered that when tree leaves decompose, they leach acids into the ocean that help fertilize plankton. When plankton thrive, so does the rest of the food chain. In a campaign called Forests Are Lovers of the Sea, fishermen have replanted forests along coasts and rivers to bring back fish and oyster stocks. And they have returned.

Trees are nature's water filters, capable of cleaning up the most toxic wastes, including explosives, solvents and organic wastes, largely through a dense community of microbes around the tree's roots that clean water in exchange for nutrients, a process known as phytoremediation. Tree leaves also filter air pollution. A 2008 study by researchers at Columbia University found that more trees in urban neighborhoods correlate with a lower incidence of asthma.

In Japan, researchers have long studied what they call "forest bathing." A walk in the woods, they say, reduces the level of stress chemicals in the body and increases natural killer cells in the immune system, which fight tumors and viruses. Studies in inner cities show that anxiety, depression and even crime are lower in a landscaped environment.

Trees also release vast clouds of beneficial chemicals. On a large scale, some of these aerosols appear to help regulate the climate; others are anti-bacterial, anti-fungal and anti-viral. We need to learn much more about the role these chemicals play in nature. One of these substances, taxane, from the Pacific yew tree, has become a powerful treatment for breast and other cancers. Aspirin's active ingredient comes from willows.

Trees are greatly underutilized as an eco-technology. "Working trees" could absorb some of the excess phosphorus and nitrogen that run off farm fields and help heal the dead zone in the Gulf of Mexico. In Africa, millions of acres of parched land have been reclaimed through strategic tree growth.

Trees are also the planet's heat shield. They keep the concrete and asphalt of cities and suburbs 10 or more degrees cooler and protect our skin from the sun's harsh UV rays. The Texas Department of Forestry has estimated that the die-off of shade trees will cost Texans hundreds of millions of dollars more for air-conditioning. Trees, of course, sequester carbon, a greenhouse gas that makes the planet warmer. A study by the Carnegie Institution for Science also found that water vapor from forests lowers ambient temperatures.

A big question is, which trees should we be planting? Ten years ago, I met a shade tree farmer named David Milarch, a co-founder of the Champion Tree Project who has been cloning some of the world's oldest and largest trees to protect their genetics, from California redwoods to the oaks of Ireland. "These are the supertrees, and they have stood the test of time," he says.

Science doesn't know if these genes will be important on a warmer planet, but an old proverb seems apt. "When is the best time to plant a tree?" The answer: "Twenty years ago. The second-best time? Today."

Jim Robbins is the author of the forthcoming book "The Man Who Planted Trees." This story previously appeared in *The New York Times*.

HATS FOR SALE

We have West Virginia Highlands Conservancy baseball style caps for sale as well as I (Heart) 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 (heart) Mountains The colors are stone, black and red. The front of the cap has I "HEART" 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 \$15 by mail. West Virginia residents add 6% tax. Make check payable to West Virginia Highlands Conservancy and send to James Solley, P.O. Box 306, Charleston, WV 25321-0306



WHAT'S GOOD FOR TROUT IS GOOD FOR US

By Don Gasper.

The region's only native trout have disappeared from half of the watersheds in the Chesapeake Bay drainage that once supported them. Native brook trout are disappearing throughout the Chesapeake region. There is, however a new Federal program, a strategy, to protect them as part of the Bay protection, and happily these headwater brook trout streams will also be addressed.

Although brook trout are the region's only native trout species. healthy populations are hard to find. According to a recent study, brook trout in the Chesapeake Bay have vanished from nearly half of the watersheds that once supported them.

Now the Chesapeake Restoration Strategy has drawn new attention to their plight. It specifically calls for upgrading brook trout habitat and watersheds by 2025. Brook trout advocates hope that momentum and funds will follow.

"We are very excited about the Chesapeake Bay Executive Order", said Mark Hudy aquatic ecologist with the Forest Service, a lead scientist. These new brook trout goals are the first to address an upland fish species. Now the Federal Agency looks to brook trout as official indicator of a watershed restoration progress. The strategy released in May by the U.S. E.P.A. was required by an Executive Order issued by The President a year earlier. It challenges the Federal Agencies to play a leading role in restoring the bay and its watersheds.

Habitat restoration for brook trout will be a big help for water quality in the local streams and eventually in the Bay. Brook trout are an indicator of healthy streams because they survive only in the coldest, purest water. Water of this quality is, however, becoming increasingly rare.

A lot of anglers consider the brook trout to be the canary in the coal mine of today. While fishermen everywhere can testify to decline of brook trout, a recent study by the Eastern Brook Trout Joint Venture, a multistate restoration partnership with Trout Unlimited, has painted the picture in great detail. This study delivered the first comprehensive look at brook trout status in approximately 5,500 watersheds that make up the species historical range from Maine to Georgia.

They found that in 95% of the watersheds habitat problems have reduced the brook trout populations or wiped them

out completely. In fact the eastern brook trout have vanished from nearly a third of the watersheds that once sustained them.

In the Chesapeake region the loss approaches half the watersheds. Most brook trout survive here only in the extreme headwaters of little disturbed mountain streams that are cool and are buffered by forest shade. They are often on public land. Brook trout have fallen victim to many of the same land use practices that pollute the Bay and its rivers with nitrogen and phosphorus.

The loss of forest, especially along streams, warms the water and increases erosion. More and more sediment is delivered through storm water runoff. The absence of forest buffers also means fewer fallen leaves and twigs which shelter fish and support microscopic aquatic life that trout ultimately feed upon. Larger limbs and trunks that fall into the stream contribute to depth and cover and create habitat that is needed for good trout populations. On farms throughout the region cattle have free access to streams. They drop manure into the water and damage stream banks as they move creating shallow channels too warm and sediment laden to support brook trout. Trout eggs must spend the entire winter under the gravel and can easily be smothered by sediment deposition

The driving force behind habitat loss varies with location. Logging practices can be a problem in mountainous areas; not just from clearcutting but also from roads and stream crossings. Acid mine drainage is a perpetual problem in many Appalachian streams. Now drilling for gas in the Marcellus Shale is a growing concern. Storm water runoff from developed areas has taken a heavy toll.

In West Virginia, acid rain has reduced, or limited, many of our purest most remote brook trout populations. It has reduced brook trout fishing opportunity. Many small populations are reduced to tiny headwater reaches that are still cool enough. Many of these do not have long-term viability because a drought, a fire or a spill could wipe them out.

Brook trout recovery requires physical stream channel habitat stability, a recovery of population robustness. A top-down hydrological recovery of in-channel stability is a required first step. Higher flows from clearcutting, impervious surfaces due to settlements, roads and roofs and compaction-continue the destabilization of channels from the first logging 100 years ago. To some extent

compensating cautions can be employed on the Federal Land's watersheds-that are expected to be "leading the way." To achieve population robustness, in order to develop "strongholds", they would need to connect the tiny isolated populations through a downstream reach that is generally populated by warmer water minnows. Measures that would remove these competing warm water minnows above a barrier may have to be employed. These are especially important in an era of global warming and the loss of stream-side hemlock shade.

Generally shade has closed over many of these streams and they are cooler today than 20-30 years ago. This has been the only good news for brook trout since the first logging. This Joint Venture and these recovery programs in the Bay are the two most significant developments favoring brook trout in 100 years. Let us hope so. Also there is perhaps a third factor. One angler puts it this way. "These little native brook trout put a bend in your rod that is as big as the smile on your face. The presence of brook trout means clean water and beautiful surroundings and there's no better place to find this beautiful little trout. No angler I know keeps them, but handles them very carefully and puts them back". Can you imagine such a place and such a stream without its crowning attribute-its brook trout?

Note: This article is something of an informal collaboration between Mr. Gasper and Lara Lutz. The article by Ms. Lutz, which appeared in the September, 2010, issue of the "Chesapeake Bay Journal", described an initiative in which efforts to restore Chesapeake Bay were being expanded to include protection of brook trout. The idea is that restoration of brook trout habitat would improve local streams and, ultimately, the Bay itself. Mr. Gasper abbreviated that article and added some of his own thoughts, thoughts that could not be attributed to Ms. Lutz. To read Ms. Lutz's entire article, go to http://www.bayjournal.com/article/new_angle_for_stream_efforts_if_its_good_for_trout_its_good_for_bay

BACK TO COURT WITH RECALCITRANT CORPS OF ENGINEERS

By John McFerrin

The West Virginia Highlands Conservancy, the Ohio Valley Environmental Coalition, and the Sierra Club have asked the United States District Court to prevent the Loadout, LLC from further filling streams with mine waste from its Nellis Surface Mine in Boone County. The groups contend that the operation would violate the federal Clean Water Act.

This is not the first time these parties have been in court over this controversy. The mine in controversy proposes to fill permanently 11,162 feet of streams. Its justification for filling these streams is using what is known as "mitigation." In mitigation, a mine creates other streams that will, in theory at least, take the place of those which were destroyed. It submitted the application to the United States Army Corps of Engineers in 2007.

Here the mitigation that the Corps approved would require Loadout, LLC to create a total of 13,564 linear feet in two separate stream channels within the perimeter ditches located around each valley fill. In the words of the Corps, the destruction of "Wilderness Fork and Dave Fork are compensated for by Created Stream 1 and Created Stream 2."

The Corps admits that the created stream channels would be less functional than the buried streams and would transport less water and nutrients downstream. Those channels may not fully support benthic communities and probably would not replace all functions and values lost as a result of the filling of the ephemeral and intermittent streams associated with this mine.

The Corps admits that the new channels will not do nearly as many of the things that headwater streams are supposed to do. It makes up for this by making the created "streams" about 2,000 feet longer than the ones that will be filled. The Corps also admitted that the valley fills would cause increased discharges of acidic drainage, specific conductivity, metals, and dissolved solids.

Also relevant in the controversy is the quality of the streams to be filled. The watershed has, up to now, been free of mining. As a result, the headwater streams of Fork Creek that would be permanently filled are in unaltered watersheds that have good aquatic system health and thriving macroinvertebrate communities. Fork Creek

is listed as attaining all designated water quality standards.

The area is also the ancestral home of West Virginia Highlands Conservancy Board member Julian Martin. He was born near the mine site and still visits relatives nearby (See accompanying story).

Applications such as this one must be advertised for public comment. In this case, the Corps of Engineers advertised the application and accepted comments before the stream mitigation plan was complete. Because of this, the mitigation plan was not subjected to public comment.

The groups went to court, contending that the mitigation plan was at the core of the company's justification for being able to destroy these streams. It would be a violation of the public notice provisions of the Clean Water Act for the Corps of Engineers to approve the application without having subjected the mitigation plan to public comment.

In 2009 the Court sided with the Plaintiffs. It concluded that the mitigation plan was such an important part of the application that it had to be submitted for public comment. It sent the application back for the Corps to try again.

Now the Corps has tried again and, according to the Plaintiffs, still could not get it right. It had ignored most of the Plaintiffs' comments, including scientific evidence that stream creation (the mitigation contemplated here) if difficult and really doesn't work. Even though the Court had ordered the Corps to consider the entire permit, it failed to consider large parts of it.

The bottom line is that the National Environmental Policy Act requires that federal agencies take seriously the environmental consequences of their decisions. Even after the Court sent the permit back to the agency, it did no more than go through the motions of accepting and considering comments.

The Plaintiffs have asked the Court to suspend the permit and enjoin and further mining. A hearing on the request will be held on May 15.

FORK CREEK—A REMEMBRANCE

By Julian Martin

My sainted grandma Barker told me of the rich Mr. Skinner riding his horse up and down Coal River buying mineral rights. Sometime back then someone got the bright idea to divide a piece of land into two parts--the surface and the minerals beneath. That was the beginning of the end of our mountains. Fifty cents an acre sounded like a fortune to subsistence farmers. Before bulldozers, steam shovels and draglines, there didn't seem to be any harm in the deal.

My prescient ancestor looked Mr. Skinner in the eyes and said, "You are Skinner by name and skinner by trade, but you will not skin old Isaac Barker." Consequently the forty acre farm with mineral rights intact (almost unheard of on Coal River) is still in our family.

I was born at Emmons near the mouth of Fork Creek on the Boone County side of Big Coal River. When I was toddler we lived in the ARMCO coal camp in Nellis. Dad was a coal miner in the mines under Fork Creek. His coal miner days were ended when his eye was cut open by a piece of flying coal while working under the very area that is now threatened with massive destruction.

As I write this ARMCO's descendant companies want to blow away the mountains and bury the streams just over the ridge from our home place in what was the Fork Creek Wildlife Management Area.

While living with Grandma in 1972 my mule escaped and I ended up walking, dragging and riding him back across nine miles of the Fork Creek protected forest land.

Leave a Legacy of hope for the future

Remember the Highlands Conservancy in your will. Plan now to provide a wild and wonderful future for your children and future generations. Bequests keep our organization strong and will allow your voice to continue to be heard. Your thoughtful planning now will allow us to continue our work to protect wilderness, wildlife, clean air and water and our way of life.