



# The Highlands Voice

The Monthly Publication of the West Virginia Highlands Conservancy

Volume 46

No. 4

April, 2013

## COURT CONSIDERS HUGE MOUNTAINTOP REMOVAL MINE

By John McFerrin

The United States Court Of Appeals for The District Of Columbia Circuit has had oral argument in the case challenging the authority of the United States Environmental Protection Agency to veto a Clean Water Act permit previously approved by the United States Corps of Engineers. The proposed mine is known as the Spruce mine, located in Logan County, West Virginia. The argument was standing room only.

### The Players

The actual parties are Mingo Logan Coal Company, Inc. and the Environmental Protection Agency. There are also multiple entities who have filed what are known as *Amicus Curiae* or Friends of the Court. They are not actual parties and have no direct stake in the outcome. At the same time, they have some sort of interest in the issue to be decided and want to present their views. They ask the Court for permission and, once the permission is granted, they get to add their two cents.

The *Amicus Curiae* included the West Virginia Highlands Conservancy, Coal River Mountain Watch, Natural Resources Defense Council, Ohio Valley Environmental Coalition, and the Sierra Club as well as



**Pigeonroost Hollow**

Once more in the crosshairs  
*Photo courtesy of Ohio Valey  
Environmental Coalition*

Natural Resources Defense Council. They were there to support the Environmental Protection Agency's decision.

In the other corner were the Chamber of Commerce and thirty four industry trade groups who opposed the Environmental Protection Agency's decision.

With the parties, their lawyers, all these friends and their lawyers, plus assorted brief case carriers, reporters, etc. the courtroom was packed.

### What this case is about

Indirectly, this case is about whether Mingo Logan Coal Company can go ahead with its plans to mine in Pigeonroost and Oldhouse Branches and their tributaries. Mingo Logan seeks to bury over six miles of pristine streams, including all wildlife living in those streams, with millions of cubic yards of mining waste, disturbing over 2,000 acres (about 3.5 square miles), releasing toxic pollutants into downstream waters, and devastating wildlife and watersheds.

The Court will not directly decide whether this is a good idea or whether the federal Clean Water Act allows it. Like much federal litigation, this case

**(More on p. 12)**

### What's inside:

Just as I was finishing up the April issue, I had a major computer problem. The result was that the editor (and not even the webmaster) could fix it without making the Voice even later. So here's the Voice, in its incomplete state. All the stories are there; just as they would have been without the computer mishap. It is missing a table of contents, a couple of headlines, a few pictures, and some general material that is in it

every month. I am sorry for the omissions but we will get this fixed in time for the May issue.

**Editor**

## Ramblin' the Ridges

By Cynthia D. Ellis

### MONONGAHELA NATIONAL FOREST --- STATING THE OBVIOUS

Some years ago, when heading for Red Creek Campground, my husband and I drove up the Dry Fork road, crossed the low water bridge, and headed for the junction with Laneville Road. But there was a once-in-a-lifetime traffic jam. A house trailer was being moved and the intersection of two narrow lanes was blocked. Slowly, the few of us going up the mountain, toward Dolly Sods were allowed to squeeze past a short line of cars coming down. The window of the first down-coming car we passed was open and a very sour-looking woman, with two little girls in the back seat, glared. Her face was contorted with disgust as she spat out, "Don't bother! There's nothing there!!!"

I suppose someone had advised her to go to Dolly Sods--- that special spot. But she found "nothing" there.

Which was why we were going.

Dolly Sods is part of the Monongahela National Forest and is one of the many, many places in the forest that have both "nothing" there...and something special there. The Monongahela



Forest, with its 900,000 plus acres from 10 West Virginia counties, is within a day's drive of one-third of the population of the United States. But it also includes eight Wilderness Areas and provides shelter and sustenance for 230 species of birds [159 breed there], 72 kinds of fish, and a wide range of other forest

creatures. Ninety per cent of West Virginia's trout streams are within the Forest's borders.

This Forest provides outdoor opportunities treasured by West Virginians and visitors too. Activities such as hiking, mountain biking, hunting, fishing, camping, horseback riding, rock climbing, canoeing, birding, and wildlife viewing all draw millions of people to visit each year.

Yet, still, there is "nothing" there.

A person can find solitude. A person can find peace. There are increasingly fewer chances to find those qualities elsewhere.

So a problem remains for those of us who love any of the places within this forest.

We want to protect them from the threat of extractive processes which would diminish the quality of popular activities and also subtract from the beauty, peace, and quiet.

We cannot envision fracking---hydrofracturing-type drilling for shale gas---in the Monongahela National Forest.

The Forest grew out of The Weeks Act of 1911 which recognized the importance of protection of stream headwaters and allowed federal purchase of lands to ensure that protection. The West Virginia Highlands Conservancy itself was organized in response to the impulse to help protect the Monongahela National Forest. Our 40 year history book notes, "The origins of the West Virginia Highlands Conservancy are traced from the first mass meeting under a revivalist's tent on top of Spruce Knob. Preservation of the Monongahela National Forest, often shortened to 'the Mon,' were

**(Cynthia D. has more to say; see it on page 5)**

### Roster of Officers, Board Members and Committee Chairs and Board of Directors

PRESIDENT: Cynthia D. Ellis, RR 1, Box 163, Red House, WV 25168 (304) 586-4135; cdellis@wildblue.net

SENIOR VICE PRESIDENT: Larry Thomas, P.O. Box 194, Circleville, WV 26804, (304) 567-2602, larryvthomas@aol.com

VICE PRESIDENT FOR STATE AFFAIRS: Frank Young, 33 Carnian Ford Road, Ripley, WV 25271, (304)372-3945, fyoung@mountain.net  
25271, (304)372-3945, fyoung@mountain.net

VICE PRESIDENT FOR FEDERAL AFFAIRS: Marilyn Shoenfeld, HC 70 Box 553, 23 Sands Springs Lane, Davis, WV 26260, (304) 866-3484, marilyn.shoenfeld@gmail.com

SECRETARY: John McFerrin, 202 Van Tassel Court, Morgantown, WV 26508, (304)291-8305, johnmcferrin@aol.com

TREASURER: Bob Marshall, 886-Z Divide Ridge Road, Kenna WV 25248 (304)545-6817, woodhavenwva@aim.com

PAST PRESIDENT: Hugh Rogers, Moon Run, Kerens, WV 26276, (304)636-2662, hugh.rogers@gmail.com

#### DIRECTORS-AT-LARGE (Terms expire October 2014)

(Vacant)

Jackie Burns jackie.burns@frontier.com .

George Beetham, 2819 Mt. Carmel Avenue, Glenside, PA 19038, (267) 252-3748, geobeet@hotmail.com

Bill McNeel, 1118 Second Ave., Marlinton, WV 24954, (304)799-4369; wpmcneel@gmail.com

Peter Shoenfeld, HC 70, Box 553, Davis, WV 26260, (304) 866-3484, (301) 642-2820; PShoenfeld@gmail.com

#### DIRECTORS-AT-LARGE (Terms expire October 2013)

Bob Henry Baber, 207 Howard St., Glenville, WV 26351, (304) 462-0320, mayorbobhenrybaber@yahoo.com

Dave Fouts, HC 80, Box 993, Maysville, WV 26833, (304) 749-8172, foutsberg@citlink.net

Michael (Mike) C. Morgan, RT 4 Box 231, Keyser, WV 26726; mctmorgan@gmail.com; 304-788-6496; 717-793-6743

LeJay Graffious, P. O. Box 69, Bruceton Mills, WV 26525; lejay@oldhemlock.org.

Mike Withers, Rt 2, Box 328, Grafton WV 26354, 304-265-3750, 1nastynash@comcast.net

#### ORGANIZATIONAL DIRECTORS

##### NATIONAL SPELEOLOGICAL SOCIETY:

PITTSBURGH CLIMBERS: Buff Rodman, 32 Crystal Dr., Oakmont, PA 15139; (412) 828-8983; buffrodman@hotmail.com

BROOKS BIRD CLUB: Cindy Ellis, RR 1, Box 163, Red House, WV 25168 (304) 586-4135; cdellis@wildblue.net

MOUNTAINEER CHAPTER TROUT UNLIMITED: Chris Byrd, 292 Magnolia Ave., Clarksburg, WV 26301 Tel. (304) 622-3023 <cbyrd@ma.rr.com>

WEST VIRGINIA RIVERS COALITION: Don Garvin, P.O. Box 666, Buckhannon, WV 26201; (304) 472-8716; DSGJR@aol.com

FRIENDS OF THE LITTLE KANAWHA: Cindy Rank, HC 78, Box 227, Rock Cave, WV 26234, (304)924-5802; clrank2@gmail.com

TEAM (Taylor Environmental Advocacy Membership): Beth Baldwin, Grafton, WV 26354, 304-265-3029, elbrn6e21@msn.com

ALLEGHENY HIGHLANDS ALLIANCE: Wayne C. Spiggle, RR 2 Box 97, Keyser WV 26726, 304-726-4868, wspiggle@mac.com

#### COMMITTEE CHAIRS

MINING COMMITTEE: Cindy Rank, HC 78, Box 227, Rock Cave, WV 26234, (304)924-5802; clrank@hughes.net

PUBLIC LANDS MANAGEMENT COMMITTEE: Marilyn Shoenfeld, HC 70, Box 553, Davis, WV 26260, (304) 866-3484, (301) 642-2820; Marilyn.Shoenfeld@gmail.com

LEGISLATIVE COMMITTEE: Frank Young, Rt. 1, Box 108, Ripley, WV 25271, (304)372-3945; fyoung@mountain.net

WIND ENERGY COMMITTEE: Peter Shoenfeld, HC 70, Box 553, Davis, WV 26260, (304) 866-3484, (301) 642-2820; PShoenfeld@gmail.com

ENDOWMENT FUND COMMITTEE: John McFerrin, 202 Van Tassel Court, Morgantown, WV 26508, (304)291-8305, johnmcferrin@aol.com

RIVERS COMMITTEE: vacant

HIGHWAYS COMMITTEE: Hugh Rogers, Moon Run, Kerens, WV 26276, (304)636-2662; hugh.rogers@gmail.com

OUTINGS COMMITTEE: Dave Saville, PO Box 569, Morgantown, WV 26507, (304)284-9548; daves@labyrinth.net

#### MISCELLANEOUS OFFICES

SPEAKERS BUREAU: Julian Martin, 1525 Hampton Road, Charleston, WV 25314, (304) 342-8989; martinjul@aol.com

WEB PAGE: Jim Solley, jamesolley@comcast.net

#### ADMINISTRATIVE OFFICES

ADMINISTRATIVE ASSISTANT: Beth Little, HC 64, Box 281, Hillsboro, WV, 24946 (304) 653-4277; blittle@citynet.net

HIGHLANDS VOICE EDITOR: John McFerrin, 202 Van Tassel Court, Morgantown, WV 26508, (304)291-8305, johnmcferrin@aol.com





**WEST VIRGINIA HIGHLANDS CONSERVANCY SPRING  
WEEKEND  
April 26-28, 2013**

**Join us at Tygart Lake State Park just south of Grafton WV**

**Friday evening: Casual get-together, pizza and snacks in the Lodge**

**Saturday morning: Committee and Board Planning**

**Saturday afternoon: Day trip to longwall mine site and T.E.A.M.\* program**

**Saturday Evening Program: 7 p.m. at the Park Lodge  
Discussion of Health Issues associated with the fossil fuel industry  
Michael Hendryx , PhD.**

Research Director for the West Virginia University Institute for Health Policy Research.

Jill Kriesky, PhD.

Associate Director for the Southwest Pennsylvania Environmental Health Project

**LODGING IS AT A PREMIUM  
PLEASE CONTACT THE PARK DIRECTLY TO RESERVE ROOMS, CABINS OR  
CAMPING SPACE.**

[www.tygartlake.com](http://www.tygartlake.com)

304-265-6144

**— for planning purposes please contact us to let us know you're coming —**

Cindy Rank, [crank2@gmail.com](mailto:crank2@gmail.com), 304-924-5802 ... or ...

Marilyn Shoenfeld, [marilyn.shoenfeld@gmail.com](mailto:marilyn.shoenfeld@gmail.com), 304-866-3484

**\*T.E.A.M. is WVHC Organizational Member Taylor Environmental Action Membership whose members live and work in the area of the new 6,000 acre Tygart #1 mine and Leer Slurry Cell.**

**How to get there:** Located in the north central part of West Virginia, Tygart Lake is easily accessible by taking north/south U.S. Route 119 or east/west U.S. Route 50 to Grafton. From Grafton take Rt. 50 to South Grafton and follow signs to the park.

**For GPS navigation enter: Bathhouse Road, Tygart Lake State Park, Grafton WV.**

*The Highlands Voice* is published monthly by the West Virginia Highlands Conservancy, P. O. Box 306, Charleston, WV 25321. Articles, letters to the editor, graphics, photos, poetry, or other information for publication should be sent to the editor via the internet or by the U.S. Mail by the last Friday of each month. You may submit material for publication either to the address listed above or to the address listed for Highlands Voice Editor on the previous page. Submissions by internet or on a floppy disk are preferred.

*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.vhighlands.org](http://www.vhighlands.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.

is directly about who gets to decide that question. Mingo-Logan and its supporters say that the Corps of Engineers gets to make the final decision. The Environmental Protection Agency and its supporters say that, while the Corps has a role and may issue a permit, the Environmental Protection Agency the Clean Water Act designates EPA as lead agency overseeing Clean Water Act permits. If, as the EPA found here, the environmental impacts of the planned mine are unacceptable, then it has the authority under the Clean Water Act to veto the permit.

#### **What has happened so far**

This mine has been controversial since at least 1998. It was a part of the *Bragg v. Robertson* litigation by the West Virginia Highlands Conservancy that resulted in the programmatic Environmental Impact Statement studying mountaintop removal mining.

More recently, in 2007 the Corps of Engineers issued the permit required to fill streams, known as a §404 permit, for the mine. This immediately resulted in protests from the West Virginia Highlands Conservancy, the Ohio Valley Environmental Coalition, and Coal River Mountain Watch as well as continued interest by the Environmental Protection Agency. The interest manifested itself in additional study, including proposing alternatives to the mining plan as proposed.

The EPA spent the next two years looking for less damaging alternatives to the proposed mining plan. Finally, in 2009 the EPA asked the Corps of Engineers to use its discretionary authority to deny the permit. When the Corps of Engineers went ahead and granted it, EPA issued notice of a proposed veto. . In announcing its decision to not allow the mining, the EPA said:

EPA's final determination on the Spruce Mine comes after discussions with the company spanning more than a year failed to produce an agreement that would lead to a significant decrease in impacts to the environment and Appalachian communities. The action prevents the mine from disposing of the waste into streams unless the company identifies an alternative mining design that would avoid irreversible damage to water quality and meets the requirements of the law. Despite EPA's willingness to consider alternatives, Mingo Logan did not offer any new proposed mining configurations in response to EPA's Recommended Determination.

The EPA also held public hearings to consider comments upon its proposed action. See the June, 2010, issue of *The Highlands Voice*.

After considering its own studies and the public comments, the EPA issued the veto that is the subject of the ongoing litigation. See the February, 2011, issue of *The Highlands Voice*.

The company appealed the EPA's decision and, on March 23, 2012, a federal court in the District of Columbia overturned the U.S. Environmental Protection Agency's veto. See the April, 2012, issue of *The Highlands Voice*. The EPA then appealed that decision to the Court of Appeals and here we are.

#### **What is at stake**

Locally, the proposed mine project would have:

- Disposed of 110 million cubic yards of coal mine waste into streams.
- Buried more than six miles of high-quality streams in Logan County, West Virginia with millions of tons of mining waste from the dynamiting of more than 2,200 acres of mountains and forestlands.
- Buried more than 35,000 feet of high-quality streams under mining waste, which will eliminate all fish, small invertebrates, salamanders,

and other wildlife that live in them.

- Polluted downstream waters as a result of burying these streams, which will lead to unhealthy levels of salinity and toxic levels of selenium that turn fresh water into salty water. The resulting waste that then fills valleys and streams can significantly compromise water quality, often causing permanent damage to ecosystems and streams.
- Caused downstream watershed degradation that will kill wildlife, impact birdlife, reduce habitat value, and increase susceptibility to toxic algal blooms.
- Inadequately mitigated for the mine's environmental impacts by not replacing streams being buried, and attempting to use stormwater ditches as compensation for natural stream losses.

In issuing the veto, EPA said, "The proposed Spruce No. 1 Mine would use destructive and unsustainable mining practices that jeopardize the health of Appalachian communities and clean water on which they depend," said EPA Assistant Administrator for Water Peter S. Silva. "Coal and coal mining are part of our nation's energy future and EPA has worked with companies to design mining operations that adequately protect our nation's waters. We have a responsibility under the law to protect water quality and safeguard the people who rely on clean water."

There is also the precedential value. Unless it's the O.J. trial or something, cases don't attract standing room only crowds unless somebody thinks they are a big deal and will make an important policy.

#### **The Arguments**

The Environmental Protection Agency, the West Virginia Highlands Conservancy and those who have weighed in on EPA's side argue that the Clean Water Act authorizes "withdrawal" of a permit at any time and that there is no confusion about its meaning. They say that the Clean Water Act contains no limit on EPA's authority based on whether or not the Corps has issued a permit. Rather, the statute does the opposite: Section 404(b) mandates that the Corps's permitting authority is at all times subject to EPA's veto authority.

The company and its fellow travelers, on the other hand, find ambiguity in the statute and unfairness in one agency withdrawing a permit which had previously been issued.

#### **How the argument went**

Nobody really knows. Lawyers, parties, people who call themselves court watchers, and mind readers listen to the Court's questions and try to figure out how they are leaning. It's still a guess.

The case is before a three judge panel. The Judges asked tough questions of both sides. At least two seemed to think that the text of section 404(c) of the Clean Water Act is quite clear and that a veto is authorized. Some suggested concern about whether EPA's ability to veto a permit after the Corps has issued it infringes too much on the Corps' permitting authority. Various questions/comments focused on what Congress meant when it gave both agencies authority under section 404.

The Judges pushed the lawyer for the company to try to explain his view of the statute. The discussion seemed to indicate that the coal company does not have any real statutory basis for its argument. The oral argument is not, of course, the entire presentation. The company submitted extensive briefs which would have contained more detailed argument.

A decision is expected in May or June.



**CYNTHIA D. FINISHES UP (Continued from p. 2)****Twice Told Tales****IT'S A WONDERFUL STORY**

By John McFerrin

The West Virginia Coal Association (and its publicity arm, the Friends of Coal)'s version of this saga is that the company has labored long and hard to do everything that "the government" asked of it on its way to meeting its legal obligations to control the environmental consequences of this mining. Finally, at the end of a long process, "the government" had approved the necessary permits and the company was ready to begin work.

At this point in the narrative they often insert several paragraphs about the War on Coal, their patriotic duty to reduce dependence upon foreign oil, improve West Virginia's economy, etc. These are fine rhetorical flourishes but they are only embellishments to the core narrative: they had their permits when the government swooped in and, for no good reason, snatched them back.

The truth of the matter is different.

Cindy Rank has done a detailed story explaining what did happen. The short version is that neither "the government" nor the United States Environmental Protection Agency issued a permit and then swooped in to revoke it. There are two agencies involved, the United States Army Corps of Engineers and the Environmental Protection Agency. The federal Clean Water Act gives the Corps of Engineers the right to issue some types of Clean Water Act permits. That same Act makes the Environmental Protection Agency the lead agency on Clean Water Act permits and gives the Environmental Protection Agency authority to veto an action by the Corps of Engineers when the environmental consequences of the mining are too great.

Neither did the Environmental Protection Agency sit idly by and, by its silence, allow the company to believe that it was meeting and had met all requirements. It continually expressed its concerns about the environmental consequences of the proposed mining. The company could not possibly have thought that EPA was satisfied that the mining, as proposed, would meet Clean Water Act requirements.

The EPA did consider alternatives to vetoing the permit. It reviewed the plans, offered alternatives, and did what it could to suggest ways the company could mine in a way that would be less environmentally damaging. There is no indication that the company incorporated any of these suggestions.

Neither was the decision to veto the permit arbitrary. This mining will have real world consequences to the waters of West Virginia and the communities where the mines are located. These are extensively documented in EPA studies, public comments, and Congressional hearings.

Cindy's article first appeared in the February, 2011, edition of *The Highlands Voice*. It appeared again in the April, 2012, issue. Both are available on the website, [www.wvhighlands.org](http://www.wvhighlands.org). For the whole thing, including references to even more materials, you can read it there.

The article is so helpful in understanding this issue that we could just run it again and again, every time the issue comes up. It would become the *Voice* equivalent of having *It's a Wonderful Life* on TV every Christmas. At the same time, it has been in the *Voice* twice; enough is enough. Go to the website.

the reason people had gathered."

However, another historical issue for the forest is that its mineral rights are owned separately from the land surface rights. Our first editor, Bob Burrell, wrote, "As long as the people explosion continues [our real problem], as long as there is a public demand for power to run automatic dryers, all electric homes, and TV in every room, as long as our legislators remain insensitive to our environment, and as long as mineral rights are so securely held by absentee owners there is not one acre of wild land in West Virginia that can be saved. [Emphasis in original]" And midway through our years as an organization, veteran WVHC member Dave Saville noted, "The Mon has valuable resources that profiteers want to get their hands on."

So, we knew early on and we continue to understand that the threats are very real. It is difficult today to understand how a drilling process---one involving the local withdrawal of huge quantities of water and then the disposing of similar huge quantities of waste water laden



**Fracking trucks.  
Not in the Mon, or at least not yet.**

with drilling contents, and huge drill sites with attendant new or newly enlarged roads---can be accomplished in a way that preserves both the special Something and Nothing of The Mon. We still want both.

# EPA ADDS TO WEST VIRGINIA'S LIST OF IMPAIRED STREAMS

By John McFerrin

The United States Environmental Protection Agency has taken action to complete West Virginia's list of impaired streams. West Virginia had left more than a thousand miles of streams off the list.

## **Background**

The goal of the federal Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. That Act requires that states develop lists of what are called "impaired waters" and submit them to the Environmental Protection Agency in even numbered years. Because the lists are required by Section 303(d) of the Act, the jargon for those lists is "303(d) lists."

Impaired waters are streams or parts of streams where the water is not clean enough to be used for designated uses, whether those uses are drinking, fishing, swimming, etc. The next step is for states to develop a plan to clean up the waters that are on the list.

The Clean Water Act sets up a federal state partnership. West Virginia is supposed to develop the list and the plan to address problems with streams on the list. The Environmental Protection Agency is supposed to oversee this. If West Virginia does not develop the list, then EPA is required to step in and add streams to the list.

The West Virginia Highlands Conservancy, the Sierra Club, and the Ohio Valley Environmental Coalition have previously notified the Environmental Protection Agency that it was not meeting its oversight responsibilities. The failure the groups point to is the failure to approve or disapprove changes to West Virginia law which carry out the Clean Water Act. More specifically, the 2012 West Virginia Legislature passed legislation which would weaken the state's water pollution control program. Since then it has begun to use that legislation to provide protection to the coal industry. (See *The Highlands Voice, February, 2013*. If you go look, it would be helpful to read both EPA Fails To Exercise Oversight—Groups File Notice To Sue on page 8 and Polluters Protected Instead Of Streams on page 9).

The notice which the groups filed is not directly about the failure to list the streams which the EPA says must be listed. It specifically addresses failure of the EPA to approve or disapprove legislative changes which led to the deficiencies in the list

## **What has happened**

Using its oversight authority, the Environmental Protection Agency has stepped in to add 255 streams or parts of streams to West Virginia's list of impaired streams, known as its 303(d) list. The West Virginia has left these streams off the list because of the legislation passed in 2012. The 255 streams include more than 1,000 miles of polluted waterways. Included in the proposed listings from the EPA were 37 miles of the Gauley River and large segments of streams in the Tug Fork, Monongahela and West Fork watersheds.

Under the Clean Water Act, West Virginia would not be allowed to rely upon that legislation until it is approved by EPA. The failure of EPA to either approve or disapprove the new law is the subject of the notice by West Virginia Highlands Conservancy, the Sierra Club, and the Ohio Valley Environmental Coalition informing the Environmental Protection Agency that it was not meeting its oversight responsibilities

The DEP left many of those streams off in response to a coal-industry-supported legislation passed during the 2012 legislative

session. That law ordered the DEP to abandon its existing methods of measuring stream health and come up with a new set of rules to define when streams are considered biologically impaired. The DEP has yet to write those rules, and agency officials declined to add to the new cleanup list hundreds of streams that otherwise might have been included under the state's old formula.

If the impaired streams are not on the state's list—as EPA says they should be—then West Virginia Department of Environmental Protection will not work on any plan to clean them up or provide them further protection. So long as this situation exists, the absence of these streams from the list makes it possible for DEP to demand less of the coal industry in protecting streams.

## **The nutshell**

In 2012, the Legislature changed the law, the result of which was to leave streams off a list of already polluted streams. Not having those streams on the list reduces the state's responsibility to come up with a plan to clean them up, including reducing the amount of pollution that may flow into those streams. This makes things easier on the coal industry, which supported the 2012 legislation.

The Clean Water Act prohibits states from implementing changes to their clean water programs until the changes have been approved by the Environmental Protection Agency. EPA has never approved the 2012 changes. In spite of this, West Virginia is using these changes as a reason to be less demanding of the coal industry.

The Environmental Protection Agency has now stepped in to require that 255 streams be added to the list of polluted streams. This is the first step toward a plan to clean up those streams. It has not yet said whether it intends to take the additional steps required to clean up the streams but that is for a future day.

**Note: Some of the material for this story originally appeared in *The Charleston Gazette*.**



Supports efforts of Plateau Action Network

# HIGHLANDS CONSERVANCY OPPOSES UNDERGROUND INJECTION WELL

By John McFerrin

The West Virginia Highlands Conservancy has filed an objection to the renewal of the Underground Injection Control Permit previously issued to Danny E. Webb Construction for its well in Fayette County, West Virginia. As part of its comments the Highlands Conservancy supported the efforts of the Plateau Action Network.

An underground injection well is designed to dispose of waste water, particularly industrial waste water. Hydraulic fracturing uses a lot of water that must be disposed of afterward. Fracturing the underground formation requires pumping huge amounts of water into the formation. Much of this water returns to the surface, bringing with it the additives that the drilling company had added to it as well as any pollutants it may have picked up. The drilling itself requires water as well. There may also be water naturally present in the formation being fractured. All this water is polluted and must be disposed of. One of the options is an underground injection well. Because such a well, if not done properly, could easily pollute surface and ground water, permits are required. Such a permit is the subject of the comments.

Much of the focus of Plateau Action Network's comments has been upon how badly Danny E. Webb Construction has performed in the past with this well.

According to Plateau Action Network's comments, the well site has been stinking since 2004. The odor is of hydrogen sulfide, a flammable toxic gas. It comes from settling ponds located on the premises.

The previous UIC permit was issued in 2007 with the condition that they be removed within six months. Danny Webb was cited on May 12, 2008 for failing to comply with the previous permit requirement. The only reason these ponds are still present is because the Department Of Environmental Protection decided not to enforce the permit that it had written and allowed Danny Webb to enter into a consent decree, allowing the pits to remain. The consent decree conditioned the ponds' continued existence on Danny Webb's not allowing any waste in the pits with objectionable odors sufficient to be smelled off-site.

The pits are still there; they still stink. The community has made complaints of objectionable odors, as have the local Postmaster, the Access Health Fayette Clinic and nearby neighbors. Since the problem has persisted for at least nine years, the residents have lost faith that Danny Webb will ever correct it. Since he has violated the present permit for so long Plateau Action Network and the Highlands Conservancy have asked that he not be issued another permit.

Plateau Action Network's comments also pointed out that there is evidence that the settling ponds are leaking, polluting both the ground and adjacent stream, and violating the Clean Water Act. The operation is in the headwaters of the main stem of Wolf Creek. Wolf Creek already has pollution problems and is part of a program to clean up impaired streams. Danny E. Webb Construction's operation has been identified as a possible water quality threat. A marshy spot has developed on the north side of the operation near the settling pond embankment. The area is reddish in color and an oily sheen has been observed. The runoff from the leaking settling ponds is directly discharging into a tributary of Wolf Creek. The fluids in the settling ponds are very high in chlorides; a recent water

sample taken by a citizen from the adjacent downstream property showed chloride levels in excess of water quality standards for both human health and aquatic life. The direct correlation of water quality analysis and visual observation suggest that the settling ponds are failing to contain fluids and are polluting the stream. Wolf Creek is the source of emergency drinking water for Fayetteville and toxic fluids from hydraulic fracturing waste should not be allowed to pollute its waters.

Plateau Action Network's comments also point out the operator's history of ignoring legal obligations and regulations. In 2007, a UST inspector found that Danny Webb was not managing his storage tanks properly. In an email to other DEP personnel, the inspector stated that Danny Webb, "is not to be trusted. He is a loose cannon, doing as he jolly well pleases, right or wrong, regulations be damned." This is not the sort of operator who should be granted permits. If the permit must be issued, removing the settling ponds must be a condition.

Danny E. Webb Construction is operating an open dump under West Virginia law. Oil and gas wastes are exempted from the definition of solid waste under the regulations implementing the West Virginia Solid Waste Management Act only if they are disposed of in a permitted facility. Although the Underground Injection well permit expired on October 25, 2012. Danny E. Webb Construction has continued to receive waste at the site. Because the facility is not permitted, the settling ponds are open dumps. Because Danny E. Webb Construction is unlawfully operating an open dump, it should not receive an Underground Injection Control permit for his currently unlawful operation.

Plateau Action Network also pointed out that the traffic, dust, noise, smell, and danger of tanker trucks traveling up the small road to the UIC site are a hazard to local residents. The permitted injection well is the only reason tanker trucks have to enter the neighborhood. While the Office of Oil and Gas cannot regulate the trucks, it does have the power to determine that the operation is not in the public interest and deny the permit on that basis.

While the Plateau Action Network's comments were entirely focused upon the Danny E. Webb Construction site, the West Virginia Highlands Conservancy's comments took a broader view. In a nutshell, the Conservancy said that if the Office of Oil and Gas can't effectively regulate such a blatantly illegal operation, what is to make us think that it can effectively regulate injection wells all over the state?

The Highlands Conservancy fully supported Plateau Action Network's position that this permit request should be denied. In addition, the comments pointed out that this is only one of numerous underground injection wells throughout the state. If the Office of Oil and Gas cannot effectively regulate this site, how is it to assure other communities that it can regulate underground injection wells located all over the state? The need is especially great now when drilling and hydraulic fracturing to produce gas from tight shale formations requires management of millions of gallons of polluted waste water those operations produce.

**(Continued on the page 7)**

## DOING IT RIGHT

By John McFerrin

How we as a society should approach the problems resulting from hydraulic fracturing has been, to say the least, controversial. While the technology has been hailed as a boon to our economy, a tool for weaning the United States from foreign energy sources, a step toward reducing global warming, etc. it has also been called a curse, a destroyer of land, water, air, roads, and communities and a false hope in the struggle against global warming.

Just how we should address these dangers is the subject of enormous controversy at all levels of government, from city councils and county commissions all the way to Congress. Lobbying costs alone would probably dwarf the economies of some small countries.

West Virginia has been no exception. We had demands for some regulation. In 2011 a select legislative committee developed legislation. There followed a special session of the legislature in which, after consultation with the oil and gas industry, Governor Tomblin proposed a lesser version of those recommendations, the version that was enacted. That didn't stop the controversy. Even in the 2013 session of the West Virginia Legislature there are dozens of bills addressing the issue. Chances of them passing are anybody's guess.

In all the controversy over gas drilling the one thing we can all agree upon is that, if we are going to do it at all we will "do it right." There are many who don't believe that we could ever drill gas wells in an environmentally benign way. They would say that we could never "do it right" and, because of this, we should never do it at all. For everyone else, the mantra is "doing it right."

Of course, "doing it right" is in the eyes of the beholder. At one end of the range is taking every possible precaution to prevent air pollution, gas leaks, water pollution, noise, excessive truck traffic, etc. At the other end is the driller whose only effort is throwing two handfuls of grass seed over his shoulder as he sprints to the county line. Governor Tomblin's efforts so far lie between the extremes. He would no doubt describe his efforts in late 2011 to implement a regulatory program for West Virginia as "doing it right." Those (including The West Virginia Highlands Conservancy) calling for a moratorium on new gas wells until it is done right would no doubt disagree. See, The Highlands Voice, October, 2012.

Below are two examples of efforts to "do it right." Neither has reached the stage where there are specific standards of performance, things that the drillers must do. They do, however, provide examples of somebody's idea of "doing it right."

On the facing page there is a discussion of how even "doing it right" so far as making policy, setting standards, etc. could never be enough.

### Problem solved or papered over?

## NEW GUIDELINES FOR HYDRAULIC FRACTURING

By John McFerrin

Now the Center for Sustainable Shale Development has announced a different approach. It has developed a set of Producer Performance Standards which oil and gas producers would be encouraged to follow. Under the standards, drilling operations would be audited for compliance with the standards, problems would be corrected, and land, water, etc. would be protected.

The press release from the Center for Sustainable Shale Development, and many of the newspaper stories on the topic, presented this as a grand bargain, a coming together of diverse interests, the lion lies down with the lamb. Problem solved. The lobbyists could all go back home, get reacquainted with their families, etc. The rest of us could quit worrying about this, finish preparing for baseball season, plant our gardens, or whatever else might strike our fancies.

### **What the Standards Say**

The "Fact Sheet" that was released by the Center for Sustainable Shale Development lists standards says that this is what is covered:

The newly formed Center for Sustainable Shale Development (CSSD) announced that it has established 15 initial performance standards that are protective of air quality, water resources and climate. While full details on the standards are available at [www.sustainablehale.org](http://www.sustainablehale.org), the major areas addressed by the initial performance standards include:

**(More on p. 8)**

## MARYLAND DEVELOPING DRILLING REGULATIONS

By John McFerrin

The State of Maryland is in the midst of a process of developing standards for Marcellus shale development.

The first step is study. Maryland commissioned a study of the topic and requested recommendations by Dr. Keith Eshleman of the University of Maryland Center for Environmental Science.

The result was *Recommended Best Management Practices for Marcellus Shale Gas Development in Maryland*. It is 173 pages of recommendations and references, all geared toward standards for drillers that would protect the environment and its communities. To read the whole thing go to: [http://www.mde.state.md.us/programs/Land/mining/marcellus/Documents/Eshleman\\_Elmore\\_Final\\_BMP\\_Report\\_22113\\_Red.pdf](http://www.mde.state.md.us/programs/Land/mining/marcellus/Documents/Eshleman_Elmore_Final_BMP_Report_22113_Red.pdf)

These will not be voluntary guidelines. Now that the study is complete, the process assumes that there will be regulations, real enforcement, etc.

No one has done a detailed comparison of the Maryland recommendations and the current West Virginia regulations. It is safe to say that the Maryland recommendations are more comprehensive, more protective of air, land, water, etc. and that they would also anticipate more mitigation of the inevitable harm to the environment and communities that the drilling would cause.

The guidelines also reflect the different postures of Maryland and West Virginia when it comes to Marcellus drilling and fracking. Maryland currently has an informal moratorium on permits for Marcellus drilling. While it has a well developed regulatory program

**(More on p. 11)**



### What passes for enforcement

## DOING IT WRONG

Commentary by John McFerrin

Elsewhere in this issue there are stories on the proposed renewal of a permit for an underground injection located in Fayette County. The renewal is being opposed by Plateau Action Network with the support of West Virginia Highlands Conservancy.

There are also stories on various attempts to “do it right”, attempts to actually get control of the environmental effects of gas well drilling and do something about them. While some consider the whole hydraulic fracturing industry a curse and are cynical about the possibility that we could ever “do it right”, stories such as this give the optimists some hope that we really could do this without destroying our land, water, air, etc.

Then, just when the optimists are lifting their weary heads, along come the Danny Webb Construction Company and, more importantly, the West Virginia Department of Environmental Protection’s response.

For details, see the story on page 5. The short version is that Danny Webb Construction Company has been operating an underground injection well in Fayette County for years. The site has been a mess for at least nine years. For nine years it has been stinking. Holding ponds leak, water is polluted. The company was cited for non-compliance. In 2008, the Department of Environmental Protection entered into a consent decree that allowed the company to continue operating; the company did not comply. Now it wants to renew the permit for the well.

Both the Plateau Action Network and the West Virginia Highlands Conservancy have asked for a public hearing. Since DEP has not announced to the contrary, it is safe to assume that it is actively considering granting the renewal.

If this is what passes for enforcement in this state what is the point of having a DEP? Can DEP really be considering renewing the permit? If they are capable of embarrassment, they will wear bags over their heads to the public hearing just to hide their shame.

Mr. Webb himself is probably friendly and possibly even charming. Many people in Fayette County are. It’s not that he’s a bad man; he’s just someone who does not belong in the wastewater disposal business.

So far as the publicly available information at the West Virginia Secretary of State’s office shows, Danny Webb Construction Company is not a front for or a subsidiary of any big company. Mr. Webb and another person with the same last name incorporated it and there are no indications that it is anything other than a Fayette County company.

If the Department of Environmental Protection cannot take effective enforcement action against Danny Webb Construction Company, what hope is there that it will ever take action against big companies bristling with lawyers, consultants, etc.?

If one is looking for an explanation (other than bias, sloth or corruption) for the DEP’s inaction, it is that there is a shortage of injection wells. With more water to be disposed of every day, there is no place to put it unless we use all the injection wells there are, even those operated by chronic polluters. Slowing approval of new permits until there are disposal facilities available would address this problem as well; it is not apparent that DEP has considered that.

Every day for almost two months citizen organizations such as the West Virginia Environmental Council lobby team and the Sierra Club have been working at the Legislature. They have been trying for more sensible laws, better policy, better standards. It is an optimists’ venture, a statement of hope that we can move toward the elusive “do it right.” Yet if the Danny Webb Construction Company is typical of Department of Environmental Protection enforcement, why bother? It’s enough to make even the most confirmed optimist long to just go back to bed.

## UNDERGROUND INJECTION WELL (Continued from page 5))

Both the Plateau Action Network and the West Virginia Highlands Conservancy have asked for a public hearing.

The Plateau Action Network is citizens’ group in Fayette County, West Virginia. Its purpose is “to promote responsible economic development while supporting sustainable environmental management within our watershed.” Incorporated in 1998, Plateau Action Network has been involved in a variety of projects and issues related to watersheds and the communities within them. These issues vary from powerline routes through scenic and sensitive areas, proposed gas line routes, water quality issues (wastewater treatment and management, acid mine drainage, flooding, and stormwater management), long term planning efforts within the county (e.g. land use, zoning and building codes), and responsible economic development.

## NEW GUIDELINES FOR GAS DRILLING

Continued from p. 6)

### Air and Climate protection, including:

- Limitations on Flaring
- Use of Green Completions/Reduced Emissions
- Reduced Engine Emissions
- Emissions Controls on Storage Tanks

### Surface and Ground Water Protection, including:

- Maximizing Water Recycling
  - Development of Groundwater Protection Plans
  - Closed Loop Drilling
  - Well Casing Design
  - Groundwater Monitoring
  - Wastewater Disposal
  - Impoundment Integrity
  - Reduced Toxicity Fracturing Fluid
- CSSD also plans to collaboratively develop and share best practices.

It is anticipated that these performance standards will expand and evolve over time as new information is developed. These standards will form the foundation of CSSD's independent, third party certification process.

Gas producers can begin seeking certification in these areas later in 2013.

No detailed side by side comparison of these standards with West Virginia law has been prepared. In some ways, were the standards followed in West Virginia it would be an improvement. West Virginia does not have, for example, "green completion." That method—required in other states and eventually to be required by Environmental Protection Agency regulations—requires companies to capture gas that emerges from the wells just as they are being completed rather than burn it or vent it to the atmosphere. Many have suggested that West Virginia regulations should require this.

### Another Point of View

While the Center for Sustainable Shale Development has promoted these standards as a grand bargain in which we all agree on how to manage gas drilling, there is another point of view. The Sierra Club's statement is typical, "This initiative, with which the Sierra Club had no involvement, provides only voluntary standards for the gas industry to meet. Voluntary certification is in no way a substitute for rigorous safeguards, monitoring, and enforcement. Voluntary safety certification is akin to slapping a band aid on a gaping wound. We know the oil and gas industry cannot be trusted to police itself and we cannot afford to give a free pass to bad actors in the industry."

While not relying upon him by name, the Sierra Club stands with James Madison, "If men were angels, no government would be necessary." *Federalist Papers No. 51*. In its view, and the view of other critics, one cannot trust the oil and gas industry to police itself. It takes a serious enforcement effort with mandatory standards and regulations, the kind that only a government has the power to carry out.

### Who Are These People

One measure of how seriously one should take the announcement of these new standards is the integrity of the Center for Sustainable Shale Development and how well it can be trusted to develop and oversee a system of voluntary controls of the oil and gas industry. If, for example, it were the publicity branch of an oil and gas lobbying organization, then the entire effort might easily be characterized as a publicity stunt designed to head off the possibility

of real regulation.

So who are these people?

This is how it describes itself:

Based in Pittsburgh, Pennsylvania, the CSSD is an independent organization whose mission is to support continuous improvement and innovative practices through performance standards and third-party certification. ....Funded by philanthropic foundations and participating energy companies, CSSD is intended to promote collaborative efforts by industry and its stakeholders called for by the Shale Gas Production Subcommittee of the U.S. Secretary of Energy's Advisory Board.

Drilling down farther, it is possible to learn of the organization by looking at its Board. That Board has twelve members:

- Four energy company executives
- One university president
- Two former public servants (heads of United States Departments of Treasury and Environmental Protection Agency)
- Representatives of two environmental advocacy groups (The Clean Air Task Force and the Environmental Defense Fund)
- Head of the Pennsylvania Environmental Council (nominally unbiased group dedicated to cooperative solutions to environmental problems; its board appears dominated by energy consultants, law firms, and energy companies)
- Head of the foundation that supports the Center
- Former researcher with Lawrence Livermore National Laboratory who lists her interests as "adaptation and reinvention of the energy system in response to climate change."

So there we have it. The Center for Sustainable Shale Development has given us a set of standards which are more protective than current West Virginia law and almost certainly more protective than current West Virginia practice. Whether they are a step forward comes down to how firmly one stands with James Madison.



## MARYLAND WORKS ON DRILLING REGULATIONS (Continued from p. 8)

for conventional drilling, it has nothing to address deep wells and hydraulic fracturing. When it found itself in the same situation, West Virginia plunged ahead with drilling, hoping regulation and enforcement could somehow catch up. Although drilling had already been proceeding with abandon for several years at the time, Governor Tomblin's legislative initiative in late 2011 was West Virginia's attempt to catch the regulations up with the industry.

The report also reflects a certain honesty about the effects of development:

*We believe that it is inevitable that there will be negative impacts from Marcellus shale gas development in western Maryland (and perhaps beyond the state's borders) and that a significant portion of these "costs" will be borne by local communities. Heavy truck traffic on local roads, noise and odors emanating from drilling sites, conflicts with outdoor recreation, diminished tourism, reduced biodiversity, and deterioration of air and water quality are some examples of the types of impacts that are likely even under the best of circumstances.*

It goes on to say that it is hoped that the benefits to the state and its people will outweigh those costs. It does not, however, seek to avoid these costs by pretending they are not there.

It is, of course, a long way from a set of recommendations to an effective regulatory program. With the report, however, Maryland has started down the road to one state's version of "doing it right."

## THANK YOU DON GASPER

Readers of the Voice knew Don Gasper well. His many letters invoked cold mountain streams, brook trout, the consequences of mining, and the choices to be made. He knew the science and loved the mountains. His voice was from his head as well as his heart. When I learned of his passing this winter, it was cause for reflection on how Don influenced me personally and professionally.

I'm sure I only know a small sliver of his work for the highlands. After all, he was with the Conservancy from the beginning, working for Shavers Fork conservation since the early 1970s, through several rounds of Mon Forest Planning, and all sorts of water quality research and advocacy. No one could recount all of Don's work. But this much I know: if there was a critical issue for brook trout in West Virginia, you could bet he was in the room, and that he was making his case with tact and determination.

I first met Don when I was working on a campaign for Appalachian wilderness nearly 20 years ago. Don was a seasoned fisheries biologist from DNR, and I was just some kid from Morgantown talking about wilderness planning. I'll always remember how he took time to work with me and steer me in the right direction. He made it clear to me that brook trout are not just for the angler, but also a symbol of Appalachian wilderness and a barometer of the integrity of the mountains.

We stayed in touch through the years as my career path brought me back to Appalachia and mountain streams. In 2008, I started as a fisheries biologist with USGS and now am leading research in West Virginia on brook trout conservation and climate change, selenium bioaccumulation, and other issues Don knew well. In some ways, his influence continues on through this work.

At a fish biologist meeting in Davis last year, he came up to me and said, half joking, "You might not want to be seen with me... you've got a scientific reputation to protect!" I laughed it off because I knew he was kidding. But now I realize what an honor it is to have gotten to know him and to have the opportunity to try to carry on his work for the highlands. He will be missed.

Than Hitt

Shepherdstown WV

# NEW ALUMINUM CRITERIA

## WHAT'S THE RUSH ? ... WHERE'S THE SCIENCE ?

By Cindy Rank

Don Garvin reported in the March issue of *the Highlands Voice* that the WV Department of Environmental Protection (WVDEP) filed with the Secretary of State's Office (SOS) a proposed revision to our state water quality standard for aluminum.

While revisions to water quality standards are not uncommon, WVDEP filed this as an Emergency Rule, a process reserved for a limited number of specific needs, and changes necessary: 1) for the immediate preservation of the public peace, health, safety or welfare, 2) to comply with a time limitation established by this code or by a federal statute or regulation, or 3) to prevent substantial harm to the public interest. (W. Va. Code § 29A-3-15(f))

Sounds serious....

But wait. Let's back up and look more closely at the rationale document WVDEP filed with the Secretary of State's Office.

First, there's nothing in the rationale document that describes an immediate need to preserve the public peace, health, safety or welfare.

Nor is there anything to indicate a state or federal law that has imposed some time limitation for setting a new standard for aluminum.

That leaves only the third legitimate reason for an emergency rule, i.e. "3) to prevent substantial harm to the public interest." So, what is that substantial harm to the public interest?

Stated briefly WVDEP writes: "Unnecessary treatment costs for a portion of the regulated community and the inclusion of many waters on the DEP's 303(d) list that are not impaired will occur without this revised dissolved aluminum and beryllium criteria. An emergency rule is therefore justified as necessary to prevent substantial harm to the public interest."

Say what????

?? West Virginia wants to fast track a weaker water quality standard for Aluminum because some regulated industries find treatment costs too burdensome? ...And WVDEP finds it too burdensome to add streams to the impaired stream list which will initiate the process of legally required clean-up plans (aka TMDLs)?

If there are valid arguments to be made about either of those situations, why bypass the normal rulemaking process with includes more extensive research and review ...and public input to boot?

Surely there is more to it than that general statement by WVDEP.

Well, WVDEP does go on to explain that the agency believes there is a legitimate scientific rationale for the change. The rationale cites recent changes to the aluminum criteria in Colorado and New Mexico and mentions that studies recognize aluminum toxicity has a direct relationship to hardness, much like other metals react in response to hardness.

### OUR RESPONSE

WV Highlands Conservancy joined with several other West Virginia organizations in opposing the proposed emergency revision to the aluminum water quality criteria. Comments were submitted at a public hearing March 27<sup>th</sup> on behalf of Appalachian Mountain Advocates, League of Women Voters of West Virginia, Ohio Valley

Environmental Coalition, Sierra Club, West Virginia Environmental Council, and West Virginia Rivers Coalition as well as West Virginia Highlands Conservancy.

We spoke against the proposal because there is no emergency and because scientific justification for the change just doesn't exist.

Testimony about the science was given at the public hearing by Dr. James Van Gundy, an aquatic ecologist and Board member of the Shavers Fork Coalition, and discussed at length in a report submitted with our comments that was written by Dr. Carys Mitchelmore, an aquatic toxicologist from the University of Maryland.

Both experts explained that Aluminum toxicity is too complex to be determined by hardness alone. Many other influences (temperature, dissolved organic material, and other substances such

*In looking at our own current criteria, WVDEP's proposed revisions are drastic and equate to greater than a 13-fold and 46-fold increase over the current criteria for acute and chronic aluminum toxicity to aquatic life respectively.*

as sulfate, fluorides, nitrates, etc.) must be taken into account. And as Dr. Van Gundy pointed out "sensitivity to Aluminum is known to vary significantly between species and often between life history stages of the same organism."

In her report Dr. Mitchelmore clearly says that changes to the water quality standards for aluminum in West Virginia are inappropriate given the paucity of peer-reviewed studies and definitive data sets that specifically investigate the relationship between aluminum toxicity and water hardness. Unlike other metals (e.g. Cd, Cu, Zn), where we have a good understanding of the relationship between water hardness and toxicity, there are very few similar robust data sets regarding this relationship with aluminum.

Furthermore she explained that West Virginia's proposed criteria are far weaker than new aluminum criteria of either of the two states that were used as support for WVDEP's proposal. Colorado's criteria are based on total aluminum, and on average are nearly 2 ½ times more stringent than WVDEP's proposed criteria which are based on dissolved form of aluminum. In New Mexico, the aluminum criteria are based on a modified method for generating dissolved aluminum which, when all is said and done, results in New Mexico's criteria to be, in effect, also based on total aluminum, and also nearly 2 ½ times more stringent than what WVDEP has proposed.

In looking at our own current criteria, WVDEP's proposed revisions are drastic and equate to greater than a 13-fold and 46-fold increase over the current criteria for acute and chronic aluminum toxicity to aquatic life respectively. The two graphs and verbal descriptions that accompany this article might be the best visuals to demonstrate just how drastic an increase this change will allow.

WVDEP's promulgation of this change through the emergency rule procedures prevented meaningful public participation and short circuited thorough scientific assessment of the proposal. WVDEP should withdraw the proposal and either retain the existing standard or carry out more extensive scientific research justifying hardness as a mitigating factor in aluminum toxicity to be presented during next year's legally scheduled triennial review.

Our remarks concluded with this statement. "WVDEP has

**(More on the next page)**

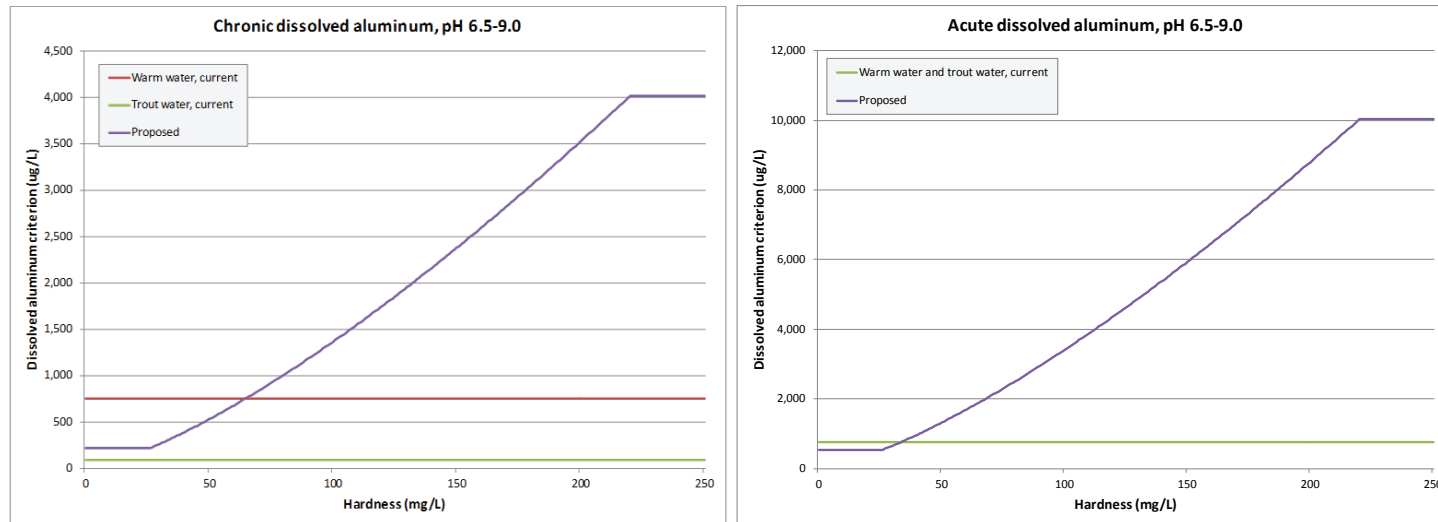


## THE PROPOSED RULE CHANGE WILL SIGNIFICANTLY WEAKEN THE ALUMINUM CRITERIA

The proposed rule requires the calculation of aluminum criteria based on the hardness of the stream. The rule, however, does not explain how much the new equation would weaken protections, as compared to the existing rule.

As shown in the first chart below, the emergency rule would weaken the current criterion for trout waters at all hardness values. As hardness increases, it will become increasingly less stringent. Once hardness reaches 220 mg/L, the proposed criterion is more than 46 times less stringent than the current criterion.

The first chart also compares the proposed chronic criterion to the current criterion for warm waters. In this case, the proposed criterion would provide additional protections if hardness is less than 65 mg/L—conditions that might be found in very few streams, and certainly not in streams already impacted by coal mining. However, at all other hardness values, the proposed criterion is weaker than the current criterion. Once hardness reaches 220 mg/L, the proposed criterion is more than 5 times less stringent than the current criterion.



Currently, a single acute criterion applies to both trout and warm waters. As shown in the second chart, the proposed criterion is slightly more protective in streams with hardness below 34 mg/L—conditions that might be found in very few streams, and certainly not in streams already impacted by coal mining. However, at all other hardness values, the proposed criterion is weaker than the current criterion. Once hardness reaches 220 mg/L, the proposed criterion is more than 13 times less stringent than the current criterion.

In short, in any but the most pristine streams, the emergency rule would weaken the existing aluminum criteria. And in high-hardness conditions witnessed in streams that are impacted by coal mining, the very streams to which this rule is meant to apply, the emergency rule represents a significant weakening of the existing criteria—more than 46 times weaker for the chronic trout water criterion, more than 5 times weaker for the chronic warm water criterion, and more than 13 times weaker for the acute criterion.

### MORE ABOUT ALUMINUM (Continued from previous page)

failed to comply with the requirements of the Clean Water Act and must abandon its flawed aluminum criteria. In the past ten years dischargers have led efforts to make West Virginia's aluminum criteria less and less protective. In each instance the state has complied. The current proposal is yet another industry led charge to abandon environmental protection in favor of corporate profits. It is long past time that WVDEP puts the needs of the environment and citizens first."

[As part of its rule, WVDEP also proposed to weaken the current Beryllium standard. However it didn't offer any "emergency" justifications for that change. Our comments were limited to the proposed change in Aluminum criteria.]

For more detail see:

Citizen's groups submitted comments: [http://www.wvrivers.org/articles/aluminum\\_comments.pdf](http://www.wvrivers.org/articles/aluminum_comments.pdf)

Report by Dr. Carys Mitchelmore: [http://www.wvrivers.org/articles/Aluminum\\_Summary.pdf](http://www.wvrivers.org/articles/Aluminum_Summary.pdf)

WVDEP Emergency Rule and rationale document:

[http://www.dep.wv.gov/WVE/Programs/wqs/Documents/Public%20Hearings/March%2027,%202013/SOS\\_WVDEPWQS\\_47CSR2\\_EmergencyRule\\_Al-Be\\_January2013.pdf](http://www.dep.wv.gov/WVE/Programs/wqs/Documents/Public%20Hearings/March%2027,%202013/SOS_WVDEPWQS_47CSR2_EmergencyRule_Al-Be_January2013.pdf)

# The West Virginia Highlands Conservancy Initiates a New Public Lands Outing Program

By David W. Saville, Chair, Public Lands Committee

A new Highlands Conservancy program, *This Land is Your Land*, will be spending a day or more each month in 2013 to explore, and learn more about our public lands.

The West Virginia Highlands Conservancy has a long and rich history of advocating for the protection and wise management of our public lands. That history is equally as rich in giving back to these lands through service projects to protect and restore them. West Virginia is not particularly rich in public lands, but it does have a good diversity and distribution.

Who manages these lands that belong to all of us? What agencies are responsible? What is the difference between the Park Service and the Forest Service? What laws provide guidance to these agencies? How did we acquire these various lands and how can we acquire more of them? What are the current management issues and are they facing any threats? How can the public become involved and engaged in their management? How can we work to benefit them and ascertain a long and healthy future for them?

These are just a few of the questions that the Public Lands Committee's new program can help Highlands Conservancy members, and the public, discover the answers to. The Program will assemble a dynamic calendar of events, published in the Highlands Voice each month and at [www.wvhighlands.org](http://www.wvhighlands.org), where we will visit, explore, and discuss the issues facing our various public lands. The events will generally include informational meetings with the area's managers, and they will also include an outing to explore or restore some of the wonders of that particular area of our land. Some events will include discussions of public lands issues and activities of the Highlands Conservancy's Public Lands Committee.

Our first event will be a service project at the Canaan Valley National Wildlife Refuge, April 20 & 21, where we will be volunteering to help restore the red spruce ecosystem by planting seedlings. Below is the current calendar of events, and more will be added as the year progresses.

Because, from West Virginia's highest Point, at Spruce Knob, to its lowest, at Harper's Ferry, *This Land was Made for You and Me!*

## This Land is Your Land - Events Calendar

Please RSVP if you are planning to attend an outing! For more information, visit [www.wvhighlands.org](http://www.wvhighlands.org), or contact Dave Saville at [daves@labyrinth.net](mailto:daves@labyrinth.net).

**Saturday and Sunday, April 20 & 21, 2013, *This Land is Your Land* - Canaan Valley National Wildlife Refuge; Red Spruce Ecosystem Restoration, 9 am.** Join us as we continue our efforts to restore the red spruce ecosystem in the West Virginia Highlands. We will meet at the Canaan Valley National Wildlife Refuge Headquarters and Visitor Center at 9 am each day. Following an orientation about the USF&WS, the Refuge and the red spruce ecosystem we will car pool to the restoration site. Come dressed for the weather, wear sturdy shoes or boots and bring gloves. Lunch will be provided. We'll work until around 5 pm on Saturday and try to finish up around 1-2 pm on Sunday.

**Sunday, June 2, 2013, *This Land is Your Land* - Greenbrier Ranger District, Monongahela National Forest, Bartow, WV, 1 pm.** Management of our National Forest happens at the District level. At this outing we will meet with District Ranger, Jack Tribble, and Wildlife Biologist, Shane Jones who will give us a tour of the District offices, and briefly describe the Forest's decision making process and management from a District level perspective. This is the first of two visits to the District this year. This trip we will learn about the restoration and reclamation of the aquatic and terrestrial ecosystems on old strip mines. As part of the "Mower Tract," an area of 60,000 acres purchased from the Mower Lumber Company in 1989, numerous formerly strip mined areas are being restored. We'll visit the Lambert Run and Barton's Bench project areas to see some of the highly acclaimed restoration work the Forest Service is accomplishing through creative partnerships and leveraged funding.

**Sunday, July 13, 2013, *This Land is Your Land* - Canaan Valley State Park, 1 pm.** At this event, we will visit with Park Superintendent, Rob Gilligan, at the Canaan Valley State Park Nature Center. Rob will discuss the management of the State "Resort" Parks as well as the new Lodge and Conference facilities. We will then take a car tour, and a few short hikes, to visit some of the Park's most outstanding features.

**Saturday, August 10, 2013, *This Land is Your Land* - Ohio River Islands National Wildlife Refuge, Williamstown, WV, 1 pm.** Meet Refuge Manager Glenn Klingler and Assistant Manager, Sara Siekierski, of West Virginia's first National Wildlife Refuge, established in 1990. Scattered along 362 miles of the Ohio River, the refuge restores and protects habitat for wildlife in one of our Nation's busiest inland waterways. It includes 22 islands and 4 mainland properties for a total of 3,440 acres. Half of the refuge acreage is underwater, providing crucial habitat to support over 40 species of freshwater mussels. Hear from refuge leadership about the challenges the refuge faces and what their team is doing to help safeguard a future for wildlife. Afterwards we'll go for a hike around Middle Island.

**September 8, 2013, *This Land is Your Land* - Kanawha State Forest, Charleston, WV, 1 pm.** Meet Assistant Superintendent, Kevin Dials at one of West Virginia's most popular State Forests. Unique among State Forests, Kanawha is managed more like a State Park because of an action of the State Legislature. The 9,300 acre forest is noted among naturalists for its diverse wildflower and bird populations. Rich cove forest sites provide nesting habitat for 19 species of wood warblers. We'll join with members of the Kanawha State Forest Foundation, a citizens group acting on the forest's behalf, for an afternoon visit.

**Sunday, October 6, 2013, *This Land is Your Land* - Greenbrier Ranger District, Monongahela National Forest, Bartow, WV 1 pm.** For the second of our visits to the Greenbrier Ranger District, we will once again meet with District Ranger, Jack Tribble and District Wildlife Biologist, Shane Jones. The discussion of current activities will focus on the upper Greenbrier North project. This large and diverse project involves numerous management activities including spruce restoration and stream habitat improvement. We'll take a car tour and some short hikes into the upper Greenbrier north project area to learn more about the activities and proposed activities associated with that project.



## PUBLIC OWNERSHIP OF LAND IN WEST VIRGINIA

	<u>US</u>	<u>WV</u>
Private land	57%	90%
Public land	41%	10%
Federal land	34%	7.5%
State land	6%	2.5%

### Federal Lands in West Virginia

#### National Forests (USDA Forest Service)

**George Washington**, 105,504 acres in West Virginia, bulk of Forest is in Virginia

**Jefferson**, 9,648 acres in West Virginia, bulk of Forest is in Virginia

**Monongahela**, 911,000 acres, located completely within 10 counties of West Virginia. 570 miles of roads, 825 miles of trails, 576 miles of trout streams, 23 campgrounds, 17 picnic areas, 0 ATV areas, 8 wilderness areas, 128,000 acres of Wilderness, 900 ft. to 4863 ft in elevation, 230 known species of birds, 75 species of trees.

#### National Wildlife Refuges (US Fish & Wildlife Service)

**Ohio River Islands**, established in 1990, 22 islands along 362 miles of the Ohio River comprising ~3,440 acres.

**Canaan Valley**, established in 1994 as nations 500th NWR, currently ~16,000 acres, Over 6,000 acres of wetlands 580 species of plants and 280 species of animals.

#### National Parks (US Park Service)

**Harpers Ferry National Historic Park**, designated a National Monument in 1944, then a National Historic Park in 1963, Over one million visitors annually, over 4,000 acres in three states. The site on which Thomas Jefferson once said, "The passage of the Potomac through the Blue Ridge is perhaps one of the most stupendous scenes in Nature" after visiting the area in 1783.

**New River Gorge National River**, established in 1978, 78,000 acres along 53 miles of the New River, provides some of the country's best whitewater paddling, most popular climbing spot in the east with over 1400 established climbs.

**Bluestone River National Scenic Area**, Protects 10.5 miles of the Bluestone River

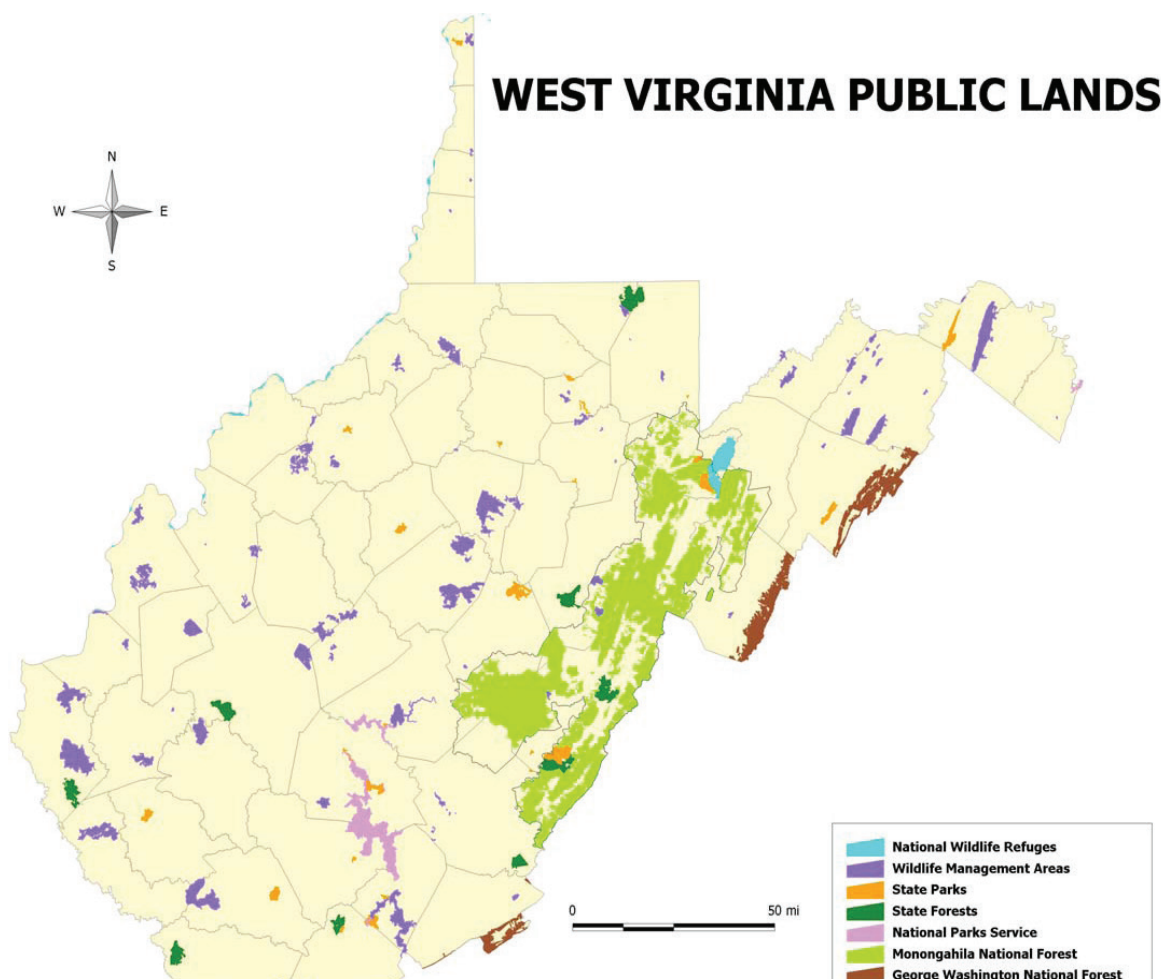
**Gauley River National Recreation Area**, Protects 25 miles of the Gauley and 6 miles of the Meadow Rivers, Dropping more than 668 feet through 25 miles of rugged terrain the Gauley is considered among the best whitewater paddling streams in the country.

### State Lands in West Virginia

State Parks (35 parks ~75,000 acres) (WV DNR Parks & Recreation Section)

State Forests (9 forests ~ 78,000 acres) (WV Div. of Forestry)

Wildlife Management Areas (72 WMAs 200,000+ acres) (WV DNR Wildlife Resources Section)



## Join Now !!!

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ E-Mail \_\_\_\_\_

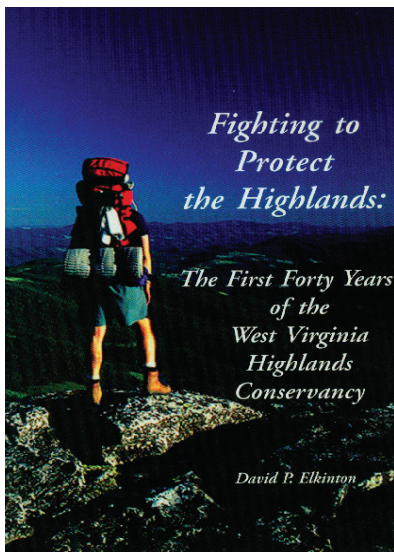
**Membership categories (circle one)**

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

Mail to West Virginia Highlands Conservancy PO Box 306 Charleston, WV 25321

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

### GREAT HISTORY BOOK NOW AVAILABLE



For the first time, a comprehensive history of West Virginia's most influential activist environmental organization. Author Dave Elkinton, the Conservancy's third president, and a twenty-year board member, not only traces the major issues that have occupied the Conservancy's energy, but profiles more than twenty of its volunteer leaders.

Learn about how the Conservancy stopped road building in Otter Creek, how a Corps of Engineers wetland permit denial saved Canaan Valley, and why Judge Haden restricted mountaintop removal mining. Also read Sayre

Rodman's account of the first running of the Gauley, how college students helped save the Cranberry Wilderness, and why the highlands are under threat as never before.

With a foreword by former congressman Ken Hechler, the book's chapters follow the battle for wilderness preservation, efforts to stop many proposed dams and protect free-flowing rivers, the 25-year struggle to save the Canaan Valley, how the Corridor H highway was successfully re-routed around key environmental landmarks, and concluding with the current controversy over wind farm development. One-third of the text tells the story of the Conservancy's never-ending fight to control the abuses of coal mining, especially mountaintop removal mining. The final chapter examines what makes this small, volunteer-driven organization so successful.

From the cover by photographer Jonathan Jessup to the 48-page index, this book will appeal both to Conservancy members and friends and to anyone interested in the story of how West Virginia's mountains have been protected against the forces of over-development, mismanagement by government, and even greed.

518 pages, 6x9, color cover, published by Pocahontas Press To order your copy for \$14.95, plus \$3.00 shipping, visit the Conservancy's website, [wvhighlands.org](http://wvhighlands.org), where payment is accepted by credit card and PayPal. Or write: WVHC, PO Box 306, Charleston, WV 25321. Proceeds support the Conservancy's ongoing environmental projects.

### SUCH A DEAL!

#### Book Premium With Membership

Although *Fighting to Protect the Highlands, the First 40 Years of the West Virginia Highlands Conservancy* normally sells for \$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.



## IT'S SPRING!

# HAVE YOU FOUND YOUR SIT SPOT?

By Hugh Rogers

Two books that came for Christmas just got a reading here: *What the Robin Knows: How Birds Reveal the Secrets of the Natural World*, by Jon Young; and *The Forest Unseen: A Year's Watch in Nature*, by David George Haskell. They're not seasonal reads—the “year's watch” is a literal description—but come spring, most of us, even skiers, will spend more time outside. These books can sharpen our awareness. Taken seriously, either one can change our relationship to the natural world.

Jon Young is a teacher in the Tom Brown lineage. Growing up in New Jersey, Young was mentored by Brown, “The Tracker,” through his teenage years. Since then, Young has taught courses and workshops for young people and adults around the world. *What the Robin Knows* is a manual that will enable you to comprehend “baseline” bird language wherever you sit—that is, the songs, companion calls, territorial defense cries, and nestling begging that characterize daily life amongst the birds. An audio supplement, available online, provides examples for most common birds.

Baseline is just the beginning, though. Young's deeper interest is the fifth type of vocalization: alarms. You will learn more about the habitat as a whole by understanding all the threats to birds. What size is the threat? How near or far? Above, below, or slithering up a tree? A threat to all, or only to some? What behavior accompanies the alarm: headlong flight, or a short jump into a bush? And so forth.

Sitting, listening, identifying, appreciating—these offer their satisfactions, but for Young, tracking is an ingrained habit, and he gets the most pleasure from counting coup, as it were, on a fox who doesn't perceive that Young has perceived he's there. Second best is finding evidence that the fox has been watching him. The birds show him the way.

At the other end of the scale is the “bird plow,” the insensitive person who scares every bird away. Young shows how to change your body language in accord with “jungle etiquette.” He wants to “diminish your circle of disturbance while expanding your zone of awareness.”

David George Haskell wants to extend your zone of awareness down to the microbial level and out to the planetary. Haskell teaches biology at the University of the South in Sewanee, Tennessee, and he's fortunate that his employer owns a big piece of forest at the edge of the Cumberland Plateau. He sends his students in a beginning ecology class out to the woods, where they toss a hoop on the ground and spend the afternoon closely studying what goes on within that “mandala.” His book is an extension of the exercise. Once a week or so over the course of a year, he sat on a rock and contemplated a square-meter-sized patch of the forest. In beautiful prose, he shares with us how everything connects to everything else.

There are tracks here as well—for example, “two almond-shaped impressions . . . sunk two inches into the leaf litter.” Haskell explains why, on a late winter evening, the deer had chosen to

browse on a viburnum shrub; how microbes in its rumen helped it digest cellulose; and the different ways other plant-eating animals do it.

He goes on to histories of the oxygen-intolerant “bacterial proletariat” and the deer's sterilizing effect on much of the eastern forest. He takes on the much-debated question, What is a “normal” forest for this part of the country? He examines reports of the earliest colonists and looks back before any human settlement on the continent. “Disquieting possibilities,” he writes, “grow out of this history. Wildflowers and shrub-nesting warblers may be experiencing the end of an unusual era of ease.”

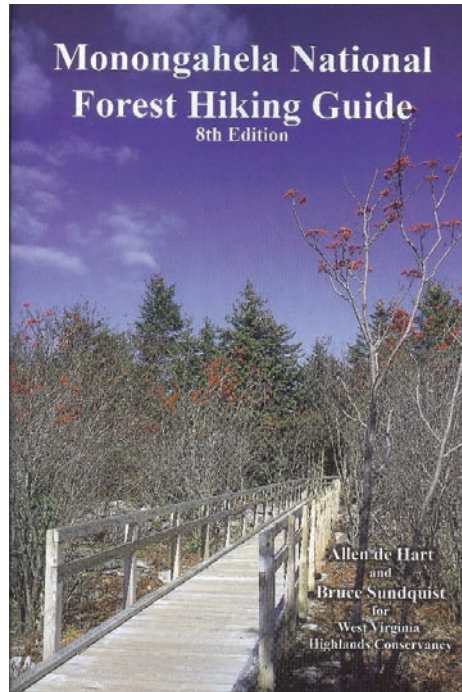
Haskell's analysis here is more detailed than most laments over the exploding population of deer. More striking is his sympathy for all who face change, as we all do. Consider the honey locust, holly, and osage orange trees that evolved in companionship with now-extinct “mega-browsers” such as ground sloths and mastodons. Their thorns grow higher than necessary and their seed dispersal mechanisms hardly work any more. “These widowed plants wear history on their sleeves, giving us a glimpse into the bereavement of the whole forest.”

The deer chapter is the longest in the book. Most are five or six pages, with one or two-word titles: “Moss;” “Spring Ephemerals;” “Wind;” “Migrants;” “Underground Bestiary.” On each visit, he begins with the day's weather and the seasons' progress. Sometimes he catches up on a subject left hanging in an earlier entry. His range of reference and metaphor is astonishing. He quotes William Blake: “To see a World in a Grain of Sand, and a Heaven in a Wild Flower.” Vast populations and processes are encompassed in his tiny patch.

Aha! I thought when I reached the entry, “November 15<sup>th</sup>—Sharp-shinned Hawk.” From Jon Young I had learned that the hawks he called “sharpies” were “speedy, adept hunters who are most productive when working in a closed, tight forest, picking off birds, small mammals, lizards, and snakes.” They provoke songbirds' most intense alarms: “Dive! Dive!” Haskell explains how “the hawk's wide, short wings let her slip between branches and accelerate powerfully as she pursues her prey. She uses her long tail to rudder through the tangled forest and snap upward, snatching flying birds from below with sicklelike talons.”

However, the inefficiency of rounded wings for sustained flight requires the hawk to compensate. Coincidentally, hawk migration has declined as the prevalence of backyard bird feeders offered a reliable “meat locker” during winter months. And that has affected wrens, spiders, ants, gnats, and fungi, on down the food chain. “We cannot move without vibrating the waters, sending out into the world the consequences of our desires.”

These books are timely, and timeless. *What the Robin Knows* is a practical manual with checklists to take to your sit spot. *The Forest Unseen* is science as literature.



## 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)

Send \$14.95 plus \$3.00 shipping to:  
West Virginia Highlands Conservancy  
P.O. Box 306  
Charleston, WV 25321  
OR  
Order from our website at  
[www.wvhighlands.org](http://www.wvhighlands.org)

### New 8TH Edition Now Available on CD

WV Highlands Conservancy proudly offers an Electronic (CD) version of its famous Monongahela National Forest Hiking Guide (8th Edition), with many added features.

This new CD edition includes the text pages as they appear in the printed version by Allen deHart and Bruce Sundquist in an interactive pdf format. It also includes the following mapping features, developed by WVHC volunteer Jim Solley, and not available anywhere else:

- All pages and maps in the new Interactive CD version of the Mon hiking guide can easily be printed and carried along with you on your hike
- All new, full color topographic maps have been created and are included on this CD. They include all points referenced in the text.
- Special Features not found in the printed version of the Hiking Guide: Interactive pdf format allows you to click on a map reference in the text, and that map centered on that reference comes up.
- Trail mileages between waypoints have been added to the maps.
- ALL NEW Printable, full color, 24K scale topographic maps of many of the popular hiking areas, including Cranberry, Dolly Sods, Otter Creek and many more

Price: \$20.00 from the same address.

### 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.





## E-DAY AT THE LEGISLATURE



**Dapper Don Garvin networks with the Friends of Coopers Rock**

**West Virginia Highlands Conservancy's soon to be personed display table.**



Four board members at one time! Briefly, on March 14, at E-Day at the West Virginia Capitol, a cluster of WVHC folks happened to gather together at our display tables. Don Garvin, Beth Little, Julian Martin, and Cindy Ellis noted collective appreciation for each other's presence. Don went off to lobby, later Beth did too. Julian needed to meet a family commitment; Cindy made the last smiles at passers-by, then packed our stuff into 4 boxes and bags and used her little cart to take them to the shuttle bus.

Thus ended another successful day of tabling with other environmental groups in the halls of the Capitol. We had spread out 3 tables of display items, sold a few shirts, gave away many copies of *The Voice*, met some new friends, and answered lots of questions. "What exactly constitutes the Highlands?" "What is your policy on wind turbines?" "Can I buy one of these Blair Mountain Red Neck bandanas?" These brought forth a definition, a recitation, and "no."

Our booth was across the way from our buddies with the Ohio Valley Environmental Council, and close to those of the Friends of Deckers Creek, and the Cooper's Rock Foundation. The latter had a most impressive booth surround...it was a replica of the rustic entryway park sign crafted back in time by the Civilian Conservation Corps.

School groups flowed past; women in very tall heels defied some notions of present and future foot comfort as they clickety-tapped along the marble halls.

Outside, a Yellow-rumped Warbler investigated a tree trunk for spider eggs and such.

## REDUCED BAT MORTALITY AT BEECH RIDGE

By Peter Shoenfeld

Beech Ridge Energy, LLC (BRE) recently submitted their 2012 Post-construction Carcass Monitoring Study for the Beech Ridge Wind Farm, prepared by Western Ecosystems Technology, Inc., in response to requirements of the Public Service Commission and the U.S. District Court. They reported an adjusted annual fatality estimate for bats during the 2012 study of 3.04 (90% CI = 1.89, 7.44) fatalities/turbine/year. The adjusted annual fatality estimate for all birds was 1.79 (90% CI = 1.46, 2.24) fatalities/turbine/year.

It was discovered some years that the high bat mortality at Appalachian ridge top wind turbine installations correlates with certain meteorological conditions and could apparently be mitigated by curtailing operation at sufficiently low wind speeds, an opportunity for “adaptive management “ This report bears this out. It says “The turbine operational protocols implemented during the 2012 monitoring period resulted in bat mortality far below the regional average bat mortality recorded at other wind generation facilities. BRE modified turbine operational protocols so that turbine blades were fully feathered below wind speeds of 6.9 m/s (15.2 mph) from 1/2 hour before sunset to 1,2 hour after sunrise” and that “The bat fatality rate at the Project was approximately 89% less than the average for other annualized West Virginia projects.” A similar comparison between Beech Ridge and the Northeastern region showed a mortality reduction of 73%.

The Highlands Conservancy was involved in this welcome development. In 2006, the Wind Energy Committee advocated such adaptive management to Beech Ridge Energy management as possible grounds for reducing opposition to Beech Ridge Energy’s project. At a contentious spring 2006 Board meeting, however, their effort was rejected by the Conservancy Board, who did not wish to compromise. However, adaptive management happened anyway, with the positive 2012 result.

## NOODLING ABOUT VOICE FORMAT CHANGE

A good while ago a reader contacted me about how the pages of *The Highlands Voice* are laid out. The reader pointed out that the electronic version of the *Voice* would be easier to read on line if each story were a single column.

When I started as editor there was no electronic, on line version of the *Voice*. It has always used two or three columns on almost all pages. This works well for the print version. Before I send it to the printer I read the *Voice* as a pdf and don’t have any trouble.

At the same time, we are getting more and more people who choose to read it on line. If they would find single columns more convenient, the *Voice* should consider a change, keeping in mind that some may still prefer two or three columns.

To give people a sample of what it would look like with single column pages, I have been putting a few in the last few issues. Did anybody notice, think it was better?

Following in the footsteps of the Environmental Protection Agency, the Corps of Engineers, etc. I am putting this out for public comment. If you have an opinion, send me a post card, drop me a line, stating point of view. John McFerrin, 202 Van Tassel Court, Morgantown, WV 26508; [johnmcferrin@aol.com](mailto:johnmcferrin@aol.com). Should you want your comment published as a letter to the editor, please say so. Otherwise I will assume it is for my edification only.

I have been editor for eleven years. My beard is completely white. These establish my bone fides as an old dog. Notwithstanding, if there is a lot of enthusiasm for changing the format, I will learn this new trick.

John McFerrin, Editor

