Study Says New Pipelines Not Needed

By John McFerrin

A new study has found that neither the Atlantic Coast Pipeline nor the Mountain Valley Pipeline is needed to meet the demand for natural gas in its destination states, South Carolina, North Carolina, and Virginia. The study finds that existing pipelines and storage facilities can supply more than enough fuel to power the region through 2030.

Why this matters

To say that these two pipelines have been controversial would be an understatement. Many, many people are worried about threats to the environment, forest fragmentation, threats to water supplies, threats to endangered species . . . The list goes on and on. People are concerned about damage to their property, safety, property values . . . The list goes on and on.

In the bigger picture, most projects—including the Atlantic Coast Pipeline and the Mountain Valley Pipeline—are subject to some sort of balancing test. It is a matter of balancing how much of a threat to the environment or intrusion upon people society should tolerate in order to have some benefit. This approach assumes that we need something. Then we have to decide what harms we are willing to risk in order to have that needed thing.

For Virginia and the Carolinas, the anticipated natural gas supply capacity on existing and upgraded infrastructure is sufficient to meet maximum natural gas demand from 2017 through 2030: Additional interstate natural gas pipelines, like the Atlantic Coast and Mountain Valley projects, are not needed to keep the lights on, homes and businesses heated, and existing and new industrial facilities in production.

All this balancing only comes into play if something is needed. If we don’t need new pipelines, there is no reason to tolerate any intrusion upon peoples’ property or risk any environmental degradation.

With pipelines, most of the balancing is done by the Federal Energy Regulatory Commission. Before a pipeline may be constructed, it must be approved by the Federal Energy Regulatory Commission. The decision to approve a pipeline is based upon whether the pipeline is needed. If it is not needed, then it cannot be approved.

What the study says about need for new pipelines

Whether a new pipeline is needed depends upon the present capacity (existing pipelines and storage facilities) to supply gas to the region and how much demand there will be for that gas.

The pipeline developers project that the demand for natural gas in the region will increase in the future. They say that the area will increase in population. They also say that more and more of the electricity for Virginia, North Carolina, and South Carolina will be produced in gas fired plants.
Indigenous Ire

It is not likely that WVHC member Ruth Rogers or I could have known or predicted how far a movement would develop from seed plantings. In June we went to Lewis County to participate in a “Seeds of Resistance” ceremony in opposition to gas and oil activity. We met Wes Mekasi Horinek, a Ponca Sioux who was part of the Cowboy and Indian coalition that stopped the Keystone Pipeline. We enjoyed his solemn words as he faced north, south, east, and west and then gave us heirloom corn seeds to plant. We went home. Ruth’s corn grew and prospered; some chipmunks took mine.

Unlike my corn, the Seeds of Resistance story has grown in a vast way, although there has been little coverage of this growth in national, commercial news sources.

The largest culmination of this resistance story has been the huge protest in North Dakota at the construction site for the Dakota Access Pipeline. This line, to transport oil, was diverted from Bismarck to lands that contain Indian burial grounds and sacred sites. The diverted route could also mean the jeopardy of contamination for the Missouri River, the water source for indigenous folk in the area.

People gathered. Throughout August and September more came every day. Two hundred tribes joined to show support. Senecas from New York State came and California Yurok and Michigan Chippewa; Cherokees sent water. Messages came from natives in the Arctic. Two land defenders came from Hawaii; they had been working against a proposal to mount a huge telescope on Mauna Kea. Sounds of traditional songs floated on the air as a tribe from the American Northwest traveled up the river--- in dugouts carved of cedar--- to join the encampment. Representatives from indigenous groups in Amazonian Ecuador came too. Camp kitchens and schools were established. Each day representatives from the camp explained why this project should be stopped.

In some bulletins from the camp we could see as a spokesman that friend we had met here in June---Mekasi.

Word spread through West Virginia. Folks from Wheeling and Whitesville drove out; they posted notices saying they’d carry supplies to share with the camp, or as much as they could stuff in their cars.

Some who came offered up prayers; others engaged in non-violent action and chained themselves to bulldozers.

Demonstrations of support sprang up…in places as diverse as Pittsburgh and Naples, Florida. In Alaska, support came from Sitka, Fairbanks, and Juneau. Resolutions of support were announced in Seattle, St. Paul, and Minneapolis. Folks turned out for the cause in D.C.

“Extraordinary” and “transformative” are two word that crop up often in descriptions of this continuing protest. Actually, participants have been firm in declining to call themselves protestors. They prefer to be known as protectors---of the land, the water, and their heritage. But they do recognize the outstanding nature of the gathering. Somebody posted a photo from Woodstock and said it was the Standing Rock camp. People were quick to discredit that picture; but that will give a notion of how big and situation-changing the camp became.

Security guards were employed by the construction company at the site. They sicced attack dogs on the protectors.

Construction has been halted, but the ultimate outcome remains to be seen.

President Obama conducted a meeting with tribal leaders, and promised to “consult on infrastructure” with representatives of the nation’s indigenous groups.

For those of us in West Virginia with access to alternate news sources, this has been a fascinating story. We have an affinity for Indians anyway. We would have called them that, rather than Indigenous, when first thinking or speaking about the encampment. We have a particular fondness for learning about their part in our history and for finding out ways in which we perceive them to be like us. Many among them and among us may consider ourselves to be marginalized and subjects of persecution and discrimination. We both have seen our lands scarred, our water fouled, and our heritage disregarded.

When they address us about this action, they say, “My relatives,” and we feel that we are. We know how it feels to fight such a fight. People came together and, for now, have stopped a scheme that would have harmed a community. So we’ll keep watching…and wishing them well.

Wishing aside, we all need to be ready to VOTE… to vote for candidates who support the preservation of our land and water. REGISTER today https://vote. usa.gov/
Study says pipelines not needed (Continued from p. 1)

instead of coal fired plants. As coal is replaced by natural gas, the demand for gas will increase. The developers say that the pipelines are needed to meet this new demand.

The study draws different conclusions about demand. It assumes that energy efficiencies, demand response (programs that pay large electric consumers to shift demand away from peak hours), and switches to sources of renewable energy will result in lower demand for natural gas than that projected by the developers. North Carolina has a “portfolio standard” (requirement that a fraction of power come from renewable sources) which will drive it toward renewable sources of power.

Whether new pipelines are needed depends upon a balancing of demand and the infrastructure to meet that need. To evaluate this, the study looked at existing pipelines and gas storage facilities. It also looked at anticipated upgrades of already existing pipelines.

There are currently nine companies who have pipelines supplying natural gas to the region. These can supply 300 MMcf of gas per hour. Typically gas companies rely upon pipeline delivery to meet ordinary needs. During times of peak demand, they supplement the gas that arrives by pipeline with gas from storage facilities. This occurs during winter months when demand is greatest. The reported capacity of gas from storage facilities was 71 MMcf of gas per hour. All gas storage facilities do not have to be reported; because of this the actual capacity from storage facilities is greater than that which is reported.

There is also additional capacity in the works. There is a planned reversal of the Transco Mainline pipeline as part of the Atlantic Sunrise project. It is expected to add the capacity to supply 254 MMcf per hour to the study region. The WB Xpress project, an upgrade to an existing pipeline proposed by Columbia Gas, would add an additional 73 MMcf per hour to the region beginning in 2018.

Taken together, these existing and proposed capacities would provide the gas Virginia, North Carolina, and South Carolina need without building either the proposed Atlantic Coast Pipeline or the Mountain Valley Pipeline. In the words of the study, For Virginia and the Carolinas, the anticipated natural gas supply capacity on existing and upgraded infrastructure is sufficient to meet maximum natural gas demand from 2017 through 2030: Additional interstate natural gas pipelines, like the Atlantic Coast and Mountain Valley projects, are not needed to keep the lights on, homes and businesses heated, and existing and new industrial facilities in production. This assessment of sufficient supply capacity includes only reported storage capacity, ignoring the existence of additional unreported storage capacity demonstrated by recent years’ peak hour demand.

The study also makes the incidental observation that if additional peak capacity is necessary, it would be more cost effective to build additional storage capacity than additional pipelines.

The report was conducted by Synapse Energy Economics of Cambridge Massachusetts and commissioned by the Southern Environmental Law Center and Appalachian Mountain Advocates with additional support from West Virginia Highlands Conservancy, Ohio Valley Environmental Coalition, Sierra Club, Eight Rivers Rivers Council, other groups, and several individual donors. It is available from several sources, including the Appalachian Blue Ridge Alliance, www.abrailliance.org.

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Birds and Fracking: What is the Effect?

With all the discussion about hydraulic fracturing, one would wonder what effect it is having on birds. Now Laura Farwell, a West Virginia University researcher, has done some work to figure it out. She will talk about her research at the WVEC and WVHC Joint Fall Conference (See complete schedule on p. 5)

Worried warbler frets about fracking
WVEC and WVHC Biennial Joint Fall Conference 2016
Camp Virgil Tate – Charleston, WV
Friday October 21 through Sunday October 23, 2016

Conference theme – Green Voices:

Information and How to Register

• Presentations on the Clean Power Plan by Downstream Strategies; Birthplace of Rivers National Monument campaign; Effects of Extractive Industries on WV Health and Environment (Dominion Pipeline and more); presentation on Effects of Gas on Songbirds; Blair Mountain; update on mountaintop removal at Kanawha State Forest. and Clean Elections. (schedule on the next page)

• Attendees will be setting WVEC’s 2017 Legislative Priorities, with input from groups who return a new questionnaire on legislative priorities mailed out and returned ahead of the conference.

• Silent Auction (please bring auction items), Tabling and Posters, Recreational Opportunities (including nature walks by Cindy Ellis and LeJay Graffious), and a campfire with S'Mores!

To register, go to bit.ly/FallConf16. You may also register by calling Paul Dalzell at 304-414-0143 or Karen Yarnell at: 304-657-0812. Pay at the conference, or pay online via WVEC’s donation page, http://wvecouncil.org/join/ When paying online, where it asks for “Organization” please write “WVHC/WVEC Fall Conference”. Charges are only for room and board. Additional donations welcomed! Please register by October 10 so we can have a meal count for the camp. (Reservations will be accepted at the conference for registration and lodging only. Late lodging is based on availability. Meals must be booked in advance.)

For more information, go to http://wvecouncil.org/wvec-wvhc-biennial-joint-fall-conference-2016/ or email Paul Dalzell at paul@wvecouncil.org

Directions to Camp Virgil Tate: Exit off I-77 at Exit 111 (Tuppers Creek Rd), turn left onto Walker Dr., County Hwy-26/1 if coming from Charleston, (turn right if coming from Parkersburg), road becomes Call Rd./County Hwy-29, turn right onto Sissonville Dr./County Hwy-21, turn left onto Martins Branch Rd/WV-622, turn left onto Rocky Fork Rd./WV-622, take first right onto County Hwy-73/Camp Virgil Tate Rd., take first right to stay on route, then 1.29 miles to camp

A Painless Path to Supporting the West Virginia Highlands Conservancy

The West Virginia Highlands Conservancy has registered to participate in the Community Rewards program operated by Kroger. This makes it possible for supporters to financially support the Conservancy by shopping at Kroger. Once a supporter has registered, Kroger will donate a small fraction of purchases to the Conservancy.

Our NPO number is 85577. You don't have to know this to register but it helps. If you don't know the number you have to search through the list of several hundred organizations to find WVHC. If you know the number you don't have to search.

The Directions (from Kroger)

TO USE THE KROGER COMMUNITY REWARDS PROGRAM:

• Simply encourage your members to register online atkrogercommunityrewards.com

• Be sure to have your Kroger Plus card handy and register your card with your organization after you sign up.

• If a member does not yet have a Kroger Plus card, please let them know that they are available at the customer service desk at any Kroger.

• Click on Sign In/Register

• Most participants are new online customers, so they must click on SIGN UP TODAY in the ‘New Customer?’ box.

• Sign up for a Kroger Rewards Account by entering zip code, clicking on favorite store, entering your email address and creating a password, agreeing to the terms and conditions

• You will then get a message to check your email inbox and click on the link within the body of the email.

• Click on My Account and use your email address and password to proceed to the next step.

• Click on Edit Kroger Community Rewards information and input your Kroger Plus card number.

• Update or confirm your information.

• Enter NPO number or name of organization, select organization from list and click on confirm.

• To verify you are enrolled correctly, you will see your organization's name on the right side of your information page.

• REMEMBER, purchases will not count for your group until after your member(s) register their card(s).

• Do you use your phone number at the register? Call 800-576-4377, select option 4 to get your Kroger Plus card number.

• Members must swipe their registered Kroger Plus card or use the phone number that is related to their registered Kroger Plus card when shopping for each purchase to count.
WVEC and WVHC Biennial Joint Fall Conference 2016
Green Voices
Schedule

Friday, 10/21
● 4:00 pm: Registration & table/poster/booth set-up begins
● 4:20-5:50 pm: Hike around camp
● 6:00 pm: Pizza Party/BYOB
    Silent Auction begins (please donate an item for the auction)
● 7:30 pm: Keynote Speaker: Clean Power Plan, Joey James, Downstream Strategies
● 9:00 pm: Recreation/campfire/BYOB

Saturday, 10/22
● 7:30-8:00 am: Breakfast is served
● 8:00-8:20 am: Registration
● 7:50-8:20 am: Nature walk with LeJay Graffious and Cindy Ellis
● 8:30-9:00 am: Welcome & Introductions of Groups and Individuals
● 9:00-10:30 am: Concurrent Session: Impact of Extractive Industries on Birds
    ○ Studies on Effect of Fracking on Birds, Laura Farwell, WVU
    ○ Report of Epigenetic Responses and Bioaccumulation of Heavy Metals in Louisiana Waterthrush, Mack Frantz
● 9:00-10:30 am: Concurrent Session: Advocacy Training
    ○ The Ins and Outs of a Lobby Meeting, Ciera Pennington, WV Citizens Action Group
● 10:30-10:45 am: Break
● 10:45-11:45 am: Birthplace of Rivers National Monument, Matt Kearns, WV Rivers Coalition
● 12:00-12:30 pm: Lunch is served
● 12:20-12:50 pm: Nature walk with LeJay Graffious and Cindy Ellis
● 1:00-2:00 pm: Concurrent Session:
    ○ Pipeline Issues, Rick Webb, Allegheny–Blue Ridge Alliance
● 1:00-2:00 pm: Concurrent session:
    ○ Success, Public Health, and the State of the Grassroots, Brandon Richardson, WV Headwaters Defense
● 2:00-2:15 pm: Break
● 2:15-3:00 pm: Health Issues relating to Industrial Wind Projects, Dr. Wayne Spiggle, WV Highlands Conservancy
● 3:00-3:45 pm: Impact of MTR on the Kanawha State Forest, Chad Cordell, Kanawha Forest Coalition
● 3:45-4:00 pm: Group photo
● 4:00-5:00 pm: Recreation and Networking: Meet and Greet with Candidates
● 5:00-5:30 pm: Dinner is served
● 5:30-6:30 pm: Networking: Meet and Greet with Candidates
● 6:30-7:30 pm: Clean Elections, Julie Archer, WV Citizens for Clean Elections
● 7:30-8:30 pm: Blair Mountain, Cindy Rank, WV Highlands Conservancy
● 8:30 pm: Silent Auction closes, winning bids announced
● 8:30 pm: Recreation/campfire/BYOB; Star-gazing at observatory

Sunday
● 7:30-8:00 am: Breakfast is served
● 9:00 am - noon: WV Highlands Conservancy annual meeting and board meeting
● 9:00 am - noon: WV Environmental Council legislative priorities
● 12:00-12:30 pm: Lunch is served
● 12:30 pm: Check out of lodging
● 1:00-4:30 pm: WV Environmental Council board meeting
Monitor Water Quality Along the Proposed Mountaineer Express Pipeline Route

Streams are at risk from the development of natural gas pipelines. That’s why we’re training volunteers, as part of the WV-VA Water Quality Monitoring Program, to effectively monitor water quality along proposed pipeline routes before, during and after potential pipeline construction.

The program will be hosting a training in partnership with Ohio Valley Environmental Coalition (OVEC) and WV Highlands Conservancy at Coonskin Park, in Charleston, WV on Sunday, October 13. Call 304-637-7201 to learn more about this opportunity.

What: Natural Gas Pipeline Volunteer Water Quality Monitoring Training
When: Sunday, October 16, 1:00pm – 6:00pm
Where: Coonskin Park Tennis Center - Charleston, WV

If you are interested in attending the training, please fill out the application by going to https://docs.google.com/forms/d/e/1FAIpQLScwTc_eIPn2oxHmrMWtSObGxlw_sChj4zXM_gK6S9iiK4Syg/viewform?c=0&w=1.

Please apply by Monday, October 10. Directions to the training session and an agenda will be provided the week of the training.

The WV-VA Water Quality Monitoring Program is a program developed by Trout Unlimited that is being implemented by Trout Unlimited and WV Rivers to train volunteers to monitor coldwater streams for impacts from shale gas and pipeline related development and other sources of non-point source pollution. Ohio Valley Environmental Coalition and WV Highlands Conservancy have partnered with TU and WV Rivers to organize this training session.

For more information contact West Virginia Rivers Coalition
www.wvrivers.org - (304) 637-7201

New River Gorge

The vertical cliff is terrifying.
No railing.
No barrier.
No warning sign.

Lawyers call a dangerous open pit an attractive nuisance.
Companies can be sued.

There is no suing God, the rain, the river that carved this spectacular crevice in the mountains of West Virginia.

Fearful of a loose rock, a gust of wind, an urge to jump,

I put down my walking stick.

First on hands and knees, then on belly, I slither to the edge until I can see straight down.

My body roots me to the earth.

Robin Talbert
Clean Power Plan Dispute Update

On September 27, opponents of the Clean Power Plan presented arguments before the United States Court of Appeals for the District of Columbia. The Clean Power Plan is designed to reduce emissions of carbon dioxide. Under the Plan, each state is required to develop a plan on how it intends to achieve the emission reductions. West Virginia Attorney General Patrick Morrisey, along with Attorneys General from about 26 other states, have sued to prevent it from going into effect.

The opponents of the Plan argued that the United States Environmental Protection Agency did not have the authority to implement these regulations. They argue that the Plan does not just control pollution. Instead, they argue that the EPA is attempting to set energy policy for states, something Plan opponents argue is beyond its authority.

Supporters of the Plan argue that the Environmental Protection Agency has the authority, and even the duty, to limit emissions of carbon dioxide. This authority has been affirmed in three separate Supreme Court opinions. They argue that this is a reasonable way in which to do it. It is particularly reasonable in light of industry practice of shifting electricity production among different types of fuels. The Clean Power Plan requires that the shifting be done in such a way that the result is less carbon dioxide emissions.

The West Virginia Highlands Conservancy, the Ohio Valley Environmental Coalition, Coal River Mountain Watch, Kanawha State Forest Foundation, the Mon Valley Clean Air Coalition and Keepers of the Mountains Foundation have intervened in the case. Along with their support for the Plan, they hope to point out the serious health impacts of mining. In their Motion to Intervene they pointed out that in “literally dozens of recent peer-reviewed studies, diligent medical researchers have documented the fact that particulate matter – whether emitted from electric utility plants directly, or indirectly from the mountaintop removal mining projects from which those utilities obtain their fuel supply – results in statistically significant increases of birth defects, decreased birth weights, diminished educational attainment, increased cancer, pulmonary and cardiac disease, and very substantially decreased life expectancy.” For more information, see the stories in the December, 2015, February, 2016, and March, 2016, issues of The Highlands Voice.

The case will be decided by what is called the Court sitting en banc. En banc means that all of the judges are going to hear the case. Normally, each case is decided by a three judge panels drawn from the entire court. In this case, the Court has decided that all seventeen will hear and decide this case instead of assigning it to a panel of three. It is generally assumed by everybody involved that, no matter what the Court of Appeals decides, the case will be appealed to the United States Supreme Court. Using the procedure the Court is using will result in the case reaching the Supreme Court more rapidly.

The argument went on for nearly seven hours. For a more complete account of the arguments, go to https://www.nrdc.org/experts/david-doniger/clean-power-plan-goes-distance-marathon-hearing. There you will find a blog post describing the arguments and the Court’s reactions. Legal arguments are not everybody’s cup of tea but if it is yours you would find the post informative.

There is no indication of when the Court will issue a decision.

Who Is Challenging or Supporting the Clean Power Plan

There are currently twenty seven (more have joined since the case began) states challenging the Clean Power Plan. Of these, nineteen have Republican attorneys general; twenty two have Republican governors. Only Missouri has a Democrat as both attorney general and governor.

There are eighteen states who have joined with the Environmental Protection Agency to defend the Clean Power Plan. Of these, all have Democratic attorneys general; twelve have Democratic governors.

There are also sixty cities who have joined in to support the Plan. Leading brands such as Google, Apple, Mars, IKEA, Amazon and Microsoft have weighed in as have more than 200 current and former members of Congress who have filed in support of the rule.

According to a report from the Center for American Progress, forty-three of the top 100 electric power producers are connected to the litigation to block the Environmental Protection Agency's Clean Power Plan. In 2013 alone these companies were responsible for nearly 21 percent of all CO2 emissions in the United States. The Center’s study found that in a single year the power producers connected to the lawsuit emitted as much carbon dioxide as 129 nations combined. If this group were a country, it would be the sixth biggest CO2 emitter in the world.

Apparrently policy changes and market forces are already changing the market so that the goals of the Clean Power Plan will be met regardless of Court action. A 2015 analysis by consulting firm M.J. Bradley & Associates for the Environmental Defense Fund found that 21 of the 27 states suing to block the Clean Power Plan are on track to meet its 2024 targets with existing plants and planned investments.

Eighteen states are on track to hit the 2030 targets with no changes to current plans, according to the Bradley analysis.

West Virginia is not one of the states which is on track to meet emissions targets.

Want to Get in on the Fun?

The West Virginia Environmental Council is hiring several lobbyists, including a team coordinator, for the upcoming 2017 legislative session. This job isn’t for everyone, but if you have what it takes it could be yours!

By being a part of the WVEC lobby team you can affect change in West Virginia! A tough job? Sure. Will there be long hours? Yes. But if you have the skills and passion, you could be just who we need, so apply today! To find out how, go to wvecouncil.org and follow the link. Or give them a buzz at (304) 414-0143.
Paddling the Mighty Mon

By Eliza Newland

The mighty, mighty Monongahela.
I’ve been staring at it since I moved to Morgantown four years ago. I’ve run alongside it on the Mon River Trail North and biked alongside it on the Mon River Trail South. I’ve had beer overlooking it at Wings Ole and pizza overlooking it at Mountain State (likely washed down with more beer). I’ve visited Pittsburgh several times, and always enjoy a walk at the great confluence, watching the Monongahela and the Allegheny join together to form the Ohio.

I’ve driven over the Mon countless times, but until today, I’d never been on it. This morning, I had the opportunity to join the Morgantown Area Paddlers and West Virginia Highlands Conservancy on a joint paddling trip. I was lucky enough to be in the same canoe as my friend LeJay Graffious, there as a representative of the West Virginia Highlands Conservancy. The group—around 20 boats strong—started at the new Van Voorhis Landing launch and paddled north.

As we traveled north, LeJay pointed out great blue herons, kingfisher, wood ducks, and green heron. I learned the difference between a dragonfly and a damselfly. We saw a tugboat pushing coal upriver, a few fishermen, but mostly just enjoyed the easy water and the company of fellow paddlers. Together, we all marveled at the comparison of looking north and south from the southern end of Fort Martin Power Station. South towards Morgantown was a great wild section of the Mon with an impressive band of wetland vegetation on the west side of the river; North towards Point Marion was a hulking power plant, belching gallons of smoke and steam into the otherwise clear sky.

The group made it to Crooked Run, with one member spotting an otter and another finding a black snake camouflaging itself in the branches of a tree, just a foot or so off the surface of the water. While resting our arms in Crooked Run, I learned that all bits of the Cattail plant are edible (if you catch them at the right part of the season and know how to prepare them) and saw a molting red-tailed hawk circling above.

Our paddle back to the launch was straight into a strong headwind, and it was good, hard work. On the way, LeJay and I spotted a grey squirrel swimming across the river. If that little squirrel could paddle its way across the river, with all that wind, surely we could make it back to the launch (and we did)!

On the short drive home, with the White Stripes’s Tiny Acorns rolling around in my head, I reflected on my first venture on the Mon. She proved herself just as mighty as I assumed: mighty full of creatures and plants to learn and mighty sure to leave my arms sore tomorrow.

Eliza Newland is from the Appalachian foothills of Georgia and works at the Watts Museum in Morgantown.

Send Us a Post Card, Drop Us a Line, Stating Point Of View

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

Leave a Legacy of Hope for the Future

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

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.

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 $15.95, plus $3.00 shipping, visit the Conservancy’s website, wvhighlands.org, where payment is accepted by credit card and PayPal. Or write: WVHC, PO Box 306, Charleston, WV 25321. Proceeds support the Conservancy’s ongoing environmental projects.

Tell a Friend!

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

Person you wish to refer: ____________________________

Address: _______________________________________

________________________________________________

Email __________________________________________

Your name: ______________________________________

Filling out the form, etc. is, of course, the old school way of doing things. If you prefer, just email the information to Beth Little at blittle@citynet.net.

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

SUCH A DEAL!

Book Premium With Membership

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

Existing members may have one for $10.00. Anyone who adds $10 to the membership dues listed on the How to Join membership or on the renewal form will receive the history book. Just note on the membership form that you wish to take advantage of this offer.
Residents Wary of Antero’s Answer to Fracking Wastewater Problem

By Ken Ward

GREENWOOD — Large cranes loom over the rolling hills just off Sunnyside Road. The tip of a large industrial tank and the steel skeleton of a building peek over the treeline along U.S. 50 near the Doddridge-Ritchie County line. Construction crews crowd the narrow road that winds up the hill from the four-lane, as workers push forward on a $275 million, two-year effort to complete what Antero Resources has dubbed “Clearwater.”

Antero officials say their new major complex — including a water treatment plant and adjacent landfill — will help solve a nagging problem faced by its natural gas operations across Appalachia: Getting enough water for gas drilling and then disposing of that water once it is contaminated with salts from underground mineral deposits and chemicals used to help release the gas from the region’s Marcellus Shale formation.

“This significantly improves the safety and reduces the environmental impact of shale development by removing hundreds of thousands of water truckloads from the roads every year, and recycles and reuses the water rather than dispose of it,” Antero CEO Paul Rady said when the project was announced a little more than a year ago.

But in the months since that announcement, residents near the project site and in the surrounding communities have become increasingly wary.

Some residents have simple questions, like whether a new stoplight eventually will be installed at the intersection where the plant is being built. Others aren’t convinced that the water treatment facility will really remove some of the most potentially dangerous contamination — metals and radioactive materials — from the water from Antero’s natural gas production activities.

Still other critics of Antero’s plan worry that installing such a huge piece of industrial infrastructure simply furthers the state’s ties to another polluting fossil fuel industry, hindering any effort to make West Virginia a state that thrives on renewable energy production.

“There’s been strong community interest about this significant project coming to Doddridge and Ritchie counties,” said Angie Rosser, executive director of the West Virginia Rivers Coalition, which has been working with the local Friends of the Hughes River Watershed Association to help educate the public about the project and open dialogue between Antero and the community.

Last week, the two citizen groups hosted a community meeting on the project. About 50 people gathered in Harrisville, at the Women’s Club Center on Main Street, a few miles west of the construction site. Representatives from Antero attended. So did someone from the Department of Environmental Protection’s Office of Environmental Advocate, which works to help citizens be better heard and understood during DEP’s review of permit applications for projects like Antero has proposed.

Conrad Baston, Antero’s project manager, explained why he and his company believe that the water treatment plant and the landfill are such good ideas.

“It’s a centralized way of dealing with this waste, trying to compress this issue into as small a package as you can,” Baston said.

Today’s natural gas industry requires huge amounts of water. Hydraulic fracturing, or fracking, pumps water and chemicals underground under high pressure to release gas from rock. When the water comes back up, it still has some of those chemicals in it, and it has picked up other contamination, salts and other materials from underground.

The whole process presents obvious problems: Where will all that water come from, especially during dry months when streams are low? What will companies do with all that contaminated water that comes back up?

Previously, companies have just pumped whatever water they needed from area streams. Water and wastewater pits were built — sometimes not always that safely — right at the well sites. Wastewater sometimes was taken to local treatment plants, which weren’t really designed for such materials, or was pumped back underground somewhere else.

Those underground injection wells have drawn increasing scrutiny, sometimes because they might be leaking, and others because scientists have found underground injection causes earthquakes.

Antero’s project would change all that, Baston said. Wastewater produced at the company’s wells would be trucked to the treatment plant, where it would be cleaned of salts and other contaminants. The water could then be reused at other gas wells. Salts would be disposed of at an adjacent landfill. Material with other contaminants would be hauled by train to some other dump somewhere else, probably in Utah or Idaho. No more on-site waste pits. No more underground injection wells. Less truck traffic.

“As an engineer, I just see this problem that I’m trying to compress into a smaller and smaller footprint,” Baston told residents.

That description, though, didn’t sit well with Lissa Lucas, who lives a few miles west of the project.

“I wonder if you recognize that what you regard as a problem or an obstacle to making profits is different than what someone who lives nearby regards as a problem,” Lucas said. For example, Lucas said, “You may be saying there’s only 10 houses affected, but if you live in one of those houses, that’s a big deal.”

The scale of the Antero project alone has many residents worried. Located on a nearly 500-acre site, the landfill would accept 2,000 tons of salt per day, according to a Rivers Coalition fact sheet. Environmental groups also note that the landfill project alone would bury more than 5 miles of streams.

Antero officials like to point out that, overall, the facility — especially with an adjacent landfill that eliminates having to ship the salt for off-site disposal — actually helps to greatly reduce truck traffic related to the company’s operations. But residents worry that the treatment plan, by processing 60,000 barrels per day of wastewater, creates one giant, congested industrial site.

“You’re consolidating,” said one resident, who didn’t give his name. “What you’re consolidating is the problem — right on top of us.”

For some residents in places like

(Continued on the next page)
Fracking Wastewater (Continued from previous page)

Doddridge and Ritchie counties, West Virginia’s natural gas boom has brought with it not only concerns about water quality, but what one local sheriff has called an “invasion” of truck traffic, along with constant noise and light and localized air pollution concerns.

Lyn Scott Bordo, a sixth generation Ritchie County resident, said that the noise from a natural gas compressor station that started up near her home ended her ability to even have a conversation while sitting on her porch in the evenings.

Residents especially are resentful toward Antero. They note repeated water pollution problems and workplace incidents that left workers hurt or dead. And Antero is the main company targeted by hundreds of residents who have filed lawsuits over truck traffic, mountains of dust, constant heavy equipment noise and bright lights that shine into their homes day and night.

Kevin Ellis, an Antero vice president, reminded residents who brought up such issues during last week’s meeting that a lot of their neighbors work for Antero and its many contracting companies, and that those neighbors do their best every day to operate safely and to minimize any negative effects from the company’s operations.

“We take seriously our obligation to do right,” Ellis said.

Still, residents and environmental groups have a variety of questions about the finer details of Antero’s plan.

For example, the company proposes to permit its landfill as a non-commercial facility — one that would take only Antero’s own waste — a move that avoids dealing with siting review by the local solid waste authority, which is required for commercial operations under the state’s decades-old law aimed at reducing out-of-state garbage. But Antero officials also talk about the possibility that they might accept and treat wastewater from other natural gas producers at the Clearwater facility, and then dispose of the salt from that treatment at the landfill, under the theory that the salt becomes internal to Antero when it comes out of the treatment facility.

Also, residents worry that they don’t yet have enough information about exactly how the treatment plant would ensure that only the salts, and not other contaminants like metals or radioactive materials, would be kept out of the landfill. In written comments submitted to the state Department of Environmental Protection, a coalition of environmental groups noted that the project is located so that spills or leaks or other discharges could affect the drinking water supply for the Hughes River Water Board, which provides water to Pennsboro, Harrisisville and Cairo.

The groups complained that the company's permit applications have not described these potential impacts or any steps that would be taken to avoid them. Antero says its landfill has many layers of protections to avoid any water contamination, but residents and others are concerned that there’s no way to absolutely guarantee any such system is foolproof.

“Landfills leak,” said Kendra Hatcher, an environmental scientist who has been examining the project for the Morgantown-based environmental consulting firm Downstream Strategies. “It might not be a big, catastrophic event, but landfills leak, so there is a legitimate concern for the groundwater.”

Compounding the concerns for local residents is the fact that while the DEP is still reviewing permit applications from Antero — and asking members of the public for their comments on those applications — construction has not only started, but appears from what residents can see to be fairly well along.

Jane Hearne, of Ritchie County, wondered aloud at last week’s meeting if approval by DEP of the project’s permits isn’t a “done deal ... when you see the [construction] process is already underway.”

Residents who worry about the politics underlying such projects and their review by state agencies were greeted at last week’s meeting with promotional material from Antero that included a quote from Gov. Earl Ray Tomblin in which the governor praised the company and its project as “good for the environment and good for West Virginia’s economy.” That quote appeared in Antero’s press release announcing the project, with approval from the governor’s office, Tomblin communications director Jessica Tice said last week.

Antero already has a construction and operation permit for the treatment facility and a construction stormwater permit, issued by separate divisions of DEP.

The company still needs several other DEP approvals, including an air quality permit for the landfill, a draft of which was issued for public comment on the day of last week’s public meeting in Harrisville.

The process, with separate permits under separate laws, rules and programs — and divisions of DEP — has been confusing for residents, even setting aside the issue of whether, with a facility already being built, a review of other permit applications is no more than an academic exercise for agency officials and citizens.

For example, as late as December 2015, when the DEP Division of Air Quality issued the treatment plant’s air permit, residents who asked questions about the company’s landfill plans were told by the agency that Antero hadn’t submitted a landfill permit application and that the company had told DEP only that “they are exploring this option, but no decision has been made yet.” The application was submitted a month later.

Some residents complained during the air permit comment period that their community is “already besieged by the gas industry — well pads, diesel truck traffic, compressor stations, pipelines, and major processing facilities ... [that] already emit toxic substances into our air. We who choose the fresh air, clean water, and quiet of country life find these destroyed.”

DEP officials responded that they are “aware of the increased activity in the oil and gas industry as it pertains to horizontal drilling in the Marcellus Shale.”

“The increase in drilling activity has created new challenges with maintaining healthy air, water and land usage,” the DEP Division of Air Quality said. “Air quality issues associated with the oil and gas sector are an expanding aspect of the DAQ’s regulatory responsibilities.”

John King, of the DEP Office of Environmental Advocate, told residents last week that the agency doesn’t allow housing developers to segment their projects into small pieces to avoid having to get stormwater construction permits, and that some sort of “common plan of permitting” is something DEP could consider and residents could encourage the agency to employ when they submit public comments on the Antero project.

(A little more on p. 12)
Disposing of Fracking Water (Continued from p. 11)

DEP Secretary Randy Huffman said last week that he doesn’t recall a situation with a major project where his agency has ever “lumped all of the permits together and required all of the permits before you can do anything.” Such an approach, Huffman said, probably would only be relevant to citizens who view the permit process as a “thumbs up or thumbs down” on a project, as opposed to an opportunity for the public to point out things DEP permit reviewers may have missed or ways the agency could improve a project’s air or water permits.

Huffman said his agency’s job is not to decide whether a particular activity — such as natural gas drilling using hydraulic fracturing — is allowed. Lawmakers and governors set such policies, and DEP enforces them, Huffman said.

“We’re not there to make policy decisions about whether some activity should occur or should not occur,” Huffman said. “The presumption with any permitting action is, if all of the requirements are met, then you will be issued the permit.”

When lawmakers passed and Tomblin signed a 2011 law aimed at better regulating oil and gas drilling, they weakened some provisions of it that would have provided more protections for residents near gas production operations. State officials said they would study those issues and could come back to them later.

The studies were done, and recommended more protections, but the law hasn’t been updated based on the findings. Instead, environmental and citizen groups have had to spend their time beating back legislative proposals aimed at lessening controls on drilling and blocking citizen lawsuits against companies like Antero.

It all creates a tough situation for residents confronted with permit applications for operations like the one Antero has planned for Doddridge and Ritchie counties, or already living with the realities of large-scale natural gas production in West Virginia’s Marcellus Shale region. They feel like a big part of the discussion is left out of the public hearings and comment periods DEP encourages them to take part in, and permit decisions are made without looking at the whole picture of a project or industry.

Rosser, the Rivers Coalition director, said that the Antero project should be “part of a broader discussion of where we are going with energy production. This infrastructure we see, with projects like this and pipelines, the more we are setting ourselves up for that future with more and more waste and not moving toward renewables.”

And as for Antero’s specific plan, Rosser recalled what one resident at last week’s meeting said as the event was breaking up: That it was good that Antero officials were trying to come up with a solution for the wastewater problem, but that, “what underlies that is that they created the problem in the first place.”

Note: This article previously appeared in The Charleston Gazette.
Because the Wind Committee of the West Virginia Highlands Conservancy (WVHC) is concerned about the cumulative impact of industrial scale wind energy development on human health and the environment, it has approved and is funding an effort to advocate for a substantial review of the Public Service Commission's ("PSC") "Siting Rules for Exempt Wholesale Generators" (Title 150, Series 30 of the WV Code of State Rules). The Siting Rules govern applications to the PSC by entities not directly affiliated with or acting as a public utility serving retail customers of electricity. They must apply for "siting certificates," which authorize the siting and construction of an industrial wind facility in the State of West Virginia. Industrial wind farms are one such "Exempt Wholesale Generator."

This effort has received the approval of the Board of Directors for submission of this issue to the West Virginia Environmental Council as a lobby issue for the 2017 legislature. Industrial or grid-scale wind energy already has a foothold in the highlands of West Virginia with five projects in operation and several more permitted by the Public Service Commission of West Virginia (PSC), one presently under construction and another, which received its initial permit in 2002 before the PSC had established the current siting rules, is back before the PSC.

Assuming, as West Virginia does, that there are to be industrial size wind turbines, we need a sensible policy for siting them in our mountains. That is why the siting of wind turbines, along with other Exempt Wholesale Generators should be on the 2017 Legislature’s plate.

The dwindling areas of specialized ecosystems which provide habitat for threatened and endangered species are especially vulnerable to disturbance and degradation from industrial wind turbine projects. Migratory avian species including raptors, passerines and bats are particularly vulnerable to displacement from critical habitats and collision mortality. Developers have downplayed the negative environmental footprint of industrial wind turbines. However, as developments proliferate, post construction monitoring points to unforeseen cumulative effects and many looming environmental and human health concerns. West Virginia’s with its inadequate regulations, guidelines and rules governing the siting of renewable energy installations urgently needs of revision. Better information on the effects of industrial wind turbines must be obtained through rigorous study and the precautionary principle adhered to before further construction proceeds and incalculable irreversible damage is done to West Virginia’s natural heritage.

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

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

The Legislature should recognize and fix this problem by creating a mechanism by which the PSC is required to tap the expertise of other state and federal agencies that are able to evaluate any submitted study and determine if there is any detriment to the environment generally and to wildlife in particular, disruption of the viewshed, diminished integrity of historic resources, and the introduction of noise into extremely quiet rural environments. There are federal and thirty four state agencies with the expertise to assist the PSC to evaluate the information presented in the studies submitted with an application, yet the PSC is not required to consult with those agencies and in fact has refused to consult with them in the past.

Eleven years of experience from around the world, as well as in West Virginia, has highlighted issues that must be addressed by the PSC in revised application rules for the siting of industrial wind energy projects in the highlands of West Virginia as well as other Exempt Wholesale Generators.

The Conservancy conceives of alternate ways of modifying the siting certificate statute, particularly to impose additional affirmative duties upon the PSC to consult directly with other governmental agencies. Though augmenting the duties of the Commission would be preferable, the Conservancy feels that the revisions the Conservancy will propose constitute a reasonable expansion of the scope of the PSC’s review of siting certificate applications. The result in practice may be actually to reduce the burdens on the Commission in such cases.

In the interest of providing for less deference to entities not legitimately invested in our state and its future and in the interest of granting greater weight to the rights of the citizens of West Virginia, the Conservancy hopes that the proposal for legislation is introduced and passed during this session of the legislature.
Inching Toward Adequate Treatment Plans

Under the Clean Water Act, West Virginia is supposed to figure out what streams are messed up, figure out how they got that way, and figure out what we are going to do about it. The United States Environmental Protection Agency is supposed to review West Virginia’s plans for different streams and decide if they are adequate or not. If they are not, the EPA is supposed to step in and do its own plan.

In early 2015, several groups (including the West Virginia Highlands Conservancy) filed suit alleging that West Virginia was not doing an adequate job off addressing these polluted streams and that EPA should step in and do the job itself. For more details, see the February, 2015, issue of The Highlands Voice [link](www.wvhighlands.org/2015/).

In court, the EPA and the West Virginia Coal Association (which jumped in to help) argued that the groups did not have standing to pursue all the claims. Standing is a legal term for being having an interest in the case. Only people who will in some way be affected by the outcome may bring a case.

The Court has now ruled that we do have standing and can proceed. A final resolution is still months away but we are making progress.

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Inching Toward More Reliable Reclamation

Under West Virginia and federal law, mining companies are required to post performance bonds to assure that reclamation is completed. If the company disappears, the Department of Environmental Protection would forfeit the bond and pay for the reclamation. Historically, bonds were posted by insurance companies or some other financial institution. Companies would pay the premiums; if the bond had to be forfeited, the financial institution would pay.

There is an alternative called “self bonding.” Under that alternative, the mining company in effect becomes the financial institution. It tells the Department of Environmental Protection that it has plenty of money so that if reclamation is ever needed it can pay for it. If it meets financial standards set forth in the regulations, it is approved for “self bonding” and doesn’t have to post a bond backed by an insurance company, etc.

One of the companies that was using “self bonding” was Alpha Natural Resources. This worked well enough as long as it was profitable. Now that it is in bankruptcy, self bonding no longer works.

As part of its bankruptcy plan recently announced, Arch Coal and its subsidiaries will quit using self-bonding. For future mining it will have to post more secure financial instruments, such as something backed by a bank or an insurance company.

The Sierra Club, Ohio Valley Environmental Coalition, and West Virginia Highlands Conservancy participated in the bankruptcy proceeding as parties in interest.

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When Deer Appear

Donna Weems

September 21, 2016

The deep voice of a Great Horned Owl speaks of his great size
His low resonant call floats through the trees in the gathering dusk
Hoo, hoo…………..Hooo……………………Hoooooo

I am drawn down the gravel road by the beauty of the evening
The crickets chorus fills the air with their late summer imperative
A small bat plies the cool evening air in the space between the tree tops
An erratic shadow beneath the stars

Without warning a deer dashes out of the forest
In one great effortless arc, she leaps across the road in front of me
white tail raised, neck arched, nose raised sensing my presence
Her hooves dance, each step drives her airborne
Her vital presence disappears into the forest

A second deer pauses in the milk weed thicket under a wild apple tree
With an explosive leap follows the first
In full deliberate flight

The Great Horned Owl calls
The evening settles about me again
I walk on, knowing the wilderness is near
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 $15.95 plus $3.00 shipping to:  
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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:  

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

BUMPER STICKERS  
To get free I ♥ Mountains bumper sticker(s), send a SASE to 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.
The baby shirts are certified organic cotton and are offered in one infant and several toddler sizes and an infant onesie. Slogan is “I ♥ Mountains Save One for Me!” Onesie [18 mo.]---$25, Infant tee [18 mo.]---$20, Toddler tee, 2T,3T,4T, 5/6---$20

► Soft pima cotton adult polo shirts are a handsome earhtone light brown and feature the spruce tree logo. Sizes S-XL [Shirts run large for stated size.] $25.00, 2XL $26.50

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

The West Virginia Highlands Conservancy’s very first international supermodel, from Gifu, Japan

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HIGHLANDS CONSERVANCY BOUTIQUE

HATS FOR SALE

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

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

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

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

T- SHIRTS

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