



The Highlands Voice

NON-PROFIT ORG.
U.S. POSTAGE PAID
PERMIT NO. 2831
CHAS., WV 25301

Published by West Virginia Highlands Conservancy

Vol. 31, No. 2 - February-March 1998

Fighting for the Future of Blackwater Canyon

By Vivian Stockman

In mid January, one week into the West Virginia legislative session, the West Virginia Highlands Conservancy Blackwater Canyon Committee hired me to work as Blackwater Canyon campaign project coordinator. I had to jump in running, as the campaign was already well underway. WVHC members and WV Sierra Club members (mainly Judy Rodd, Linda Cooper, Jim Sconyers, and Mike Withers) had a draft resolution on saving the Canyon. Our plan was to lobby legislators to get their support for introducing the resolution.

Here's a brief overview of the Canyon's plight. In February of 1997, Allegheny Wood Products (AWP) purchased the Canyon. Logging is now underway. Kayakers have reported logging skid roads very close to the river's edge. John Crites, owner of AWP, has agreed to consider a proposed land swap, where he would trade a very small portion of the Canyon for an undetermined amount of land in the Monongahela National Forest.

This proposal is unacceptable to WVHC. As anyone who has visited the Canyon knows, this area, home to several threatened and endangered species, is one of the most spectacular regions in West Virginia. Abutted by the Monongahela National Forest and the State Park, the Canyon was thought to be public land by tens of thousands of visitors to Lindy Point. Now the trail to this spectacular scenic overlook, which is featured on state tourism videos and brochures, is off-limits to hikers, as are many other trails.

In order to save the Canyon, WVHC has implemented several strategies. Tom Michael, winner of the WV Environmental Council's (WVEC) Mother Jones Award, continues his legal challenge of the sale, with a hearing before the Supreme Court in April. On the legislative front, WVHC and WVEC members and sympathizers wrote and re-wrote the resolution. After intensive lobbying, we secured 11 Senate sponsors, with Senator Craig as the lead sponsor. On the House



Blackwater Canyon

Photo courtesy West Virginia Department of Tourism

side, Delegate Mike Buchanan introduced the resolution and 37 Delegates signed on. Shenanigans by Delegate Joe Martin caused 10 or so Delegates to later "sign off."

The resolution sparked intense debate on the Senate floor, with Senators Plymale and Minear literally sputtering in anger. Their anger, and our press releases, helped generate heavy media coverage that still continues. The Charleston Gazette came out with an editorial saying legislators ought to pass our resolution. The modest resolution simply calls upon the WV Department of Natural Resources to formulate a plan to acquire the Canyon as public lands.

Through WVEC's weekly GREEN update, and the phone tree developed by Chuck Wyrstok and Linda Cooper, we have been asking the public to tell their legislators to support the Blackwater Canyon Resolution. If you haven't already done so, please call your legislators at 1-800-642-8650. Ask your friends to call, write letters-to-the editor, and call Governor Underwood (558-2000) and Senator Rockefeller (1-888-723-5246). Public pressure will help us reclaim the Canyon.

Detractors of the resolution whine that it is "nothing more than harassment of a private property owner." Nonsense. No one believes Mr. Crites ought to lose money. He has said all he wants is trees. Of course, stripping the Canyon of its trees, even with selective cutting, will drastically degrade the Canyon, with siltation problems affecting the Blackwater River (where the state has spent \$1 million to restore to a premium trout fishery). Continuing logging will further threaten endangered species such as the northern flying squirrel, and will decrease tourism, which now brings \$40 million annually into Tucker county. The coast to coast American Discovery Trail, slated to include a trail through the Canyon, will become the "Trail to A Timber Job," instead of an adventure in West Virginia Wilderness.

What the resolution proposes is a win/win situation, where Mr. Crites is reimbursed for the Canyon, so that he can purchase trees elsewhere in the State, and where the entire Canyon is saved forever as a symbol of Wild, Wonderful West Virginia.

E-Day at the State Capitol really illustrated the popular support for saving the Canyon. People were lining up to buy Carol Jackson's flying squirrel pins. These pins and

See CANYON on page 12

--- from the heart of the plateau ---

By John McFerrin

John Crites – Insular? Enigmatic?

We had a glimmer of hope that we were moving toward a resolution of the controversy over Blackwater Canyon. Then John Crites, the owner of Canyon owning Allegheny Wood Products, snuffed it out.

Through an intermediary, Mr. Crites had suggested a meeting to air differences and begin working toward a solution. In response, several of the groups who had been active in this controversy (Sierra Club, West Virginia Highlands Conservancy, Mountaineer Chapter of Trout Unlimited) offered to meet with Mr. Crites. We suggested some possible times and dates and agreed to his suggestion that no press be present.

The only requirement we had was that the meeting be with Mr. Crites himself. Since from all accounts he makes the decisions for the company, a meeting is only useful if he participates. If the meeting only consisted of some lower level Allegheny Wood Products employee reading a prepared statement then it is useless. Only if someone with authority to bind the company participates can we truly begin working toward a solution.

Mr. Crites refused to meet.

This leaves us disappointed and more than a little bewildered. We are disappointed because we thought we were making progress.

We are bewildered because, from where we sit, Mr. Crites' position appears irrational. His company owns one of the most treasured spots in West Virginia. It is a spot that the United States Forest Service would, from all indications, buy for a fair price.

Mr. Crites is a businessman. If he chooses to hang onto Blackwater Canyon and realize a return on his investment through logging or residential development, he faces several obstacles. He faces the continued uncertainty of ongoing litigation before the Public Service Commission. This includes the distinct possibility that his title to the land will prove to be void.

He faces constant scrutiny and criticism of his operations. At his other operations, he must only worry about the enforcement (such as it is) of sediment control laws by the West Virginia Division of Forestry. Logging in Blackwater Canyon will result in interested citizens scrutinizing the operation at every opportunity, reporting any violations they see, and pressing for prosecution to the extent the law allows.

Blackwater Canyon is home to endangered species. Although how much he has to do because of this depends upon the diligence of federal officials, he can't just ignore it. If he logs, he is going to have to address this issue.

See McFERRIN on page 13

Roster of Officers, Board Members and Committee Chairs BOARD OF DIRECTORS

PRESIDENT: John McFerrin
114 Beckley Ave., Beckley, WV 25801 252-8733
SENIOR VICE PRESIDENT: Frank Young
Rt. 1, Box 108, Ripley, WV 25271 372-9329
VICE PRESIDENT FOR STATE AFFAIRS: Norm Steenstra
1324 Virginia St. E., Charleston, WV 25301 W-346-5891 H-344-0150
VICE PRESIDENT FOR FEDERAL AFFAIRS: Vacant
SECRETARY: Jacqueline A. Hallinan
1120 Swan Rd., Charleston, WV 25314 345-3718
TREASURER: Tom Michael
Rt. 2, Box 217, Lost Creek, WV 26385 623-3447
PAST PRESIDENT: Cindy Rank
HC 78, Box 227, Rock Cave, WV 26234 924-5802

DIRECTORS-AT-LARGE

(Terms expire October 1998)

William P. McNeel, 1118 Second Ave., Marlinton, WV 24954 799-4369
Andrew Maier, Rt. 1, Box 27, Hinton, WV 25952 466-3864
Mary Pat Peck, 36 Meade St., Buckhannon, WV 26201 472-3049
Joe Marshall, 108 3rd St., Elkins, WV 26241 636-9555
Hugh Rogers, Moon Run, Kerens, WV 26276 636-2662

DIRECTORS-AT-LARGE

(Terms expire October 1997)

Sayre Rodman, 32 Crystal Dr., Oakmont, PA 15139 (412) 828-8983
Carroll Jett, Rt. 1, Box 22, Sherman, WV 26173 273-5247
Don Garvin, PO Box 436, Buckhannon, WV 26201 472-8716
Carter Zerbè, 16 Arlington Ct., Charleston, WV 25301 343-3175
Bob Marshall, 201 Virginia St. W., Charleston, WV 25302 345-5518

ORGANIZATIONAL DIRECTORS

NATIONAL SPELEOLOGICAL SOCIETY: Virginia Region - Judy Fisher
PO Box 276, Berkeley Springs, WV 26411 258-4974
PITTSBURGH CLIMBERS: Jean Rodman
32 Crystal Dr., Oakmont, PA 15139 (412) 828-8983
WEST VIRGINIA MOUNTAIN STREAM MONITORS: Jason Huber
105 Capitol St., Charleston, WV 25301 1-800-377-2878
BROOKS BIRD CLUB: Mary Moore Riffenburger
Rt. 1, Box 253, Elkins, WV 26241 636-4559
MOUNTAINEER CHAPTER TROUT UNLIMITED: Phil Rossano
Rt. 2, Box 375, Buckhannon, WV 26201 472-0942
WEST VIRGINIA RIVERS COALITION: Pam Moc-Merritt
49 W. Main St., Buckhannon, WV 26201 472-0025
DOWNSTREAM ALLIANCE: Joan Sims
Rt. 5, Box 310-1/2, Morgantown, WV 26505 296-8860
VIRGINIANS FOR WILDERNESS: Bob Mueller, Rt. 1, Box 250
Staunton, VA 24401 <http://atlas.comet.net/~gus/forests/>

COMMITTEE CHAIRS

MINING COMMITTEE: Cindy Rank
HC 78, Box 227, Rock Cave, WV 26234 924-5802
PUBLIC LANDS MANAGEMENT COMMITTEE: Sayre Rodman
32 Crystal Dr., Oakmont, PA 15139 (412) 828-8983
Bill Ragette, 144 Trace Fork Rd., Culloden, WV 25510 824-3571
PUBLICATIONS COMMITTEE: Judy Rodd
Rt. 1, Box 178, Moatsville, WV 26405 265-0018
ENDOWMENT FUND COMMITTEE: David Elkinton
609 Farms Dr., Fairmont, WV 26554 366-5906
RIVERS COMMITTEE: Mary Pat Peck
49 W. Main St., Buckhannon, WV 26201 472-0025
HIGHWAYS COMMITTEE: Hugh Rogers
Moon Run, Kerens, WV 26276 636-2662
MEMBERSHIP DEVELOPMENT: Carroll Jett
Rt. 1, Box 22, Sherman, WV 26173 273-5247

ADMINISTRATIVE OFFICES

Administrative Assistant: Dave Saville PO Box 569 Morgantown, WV 26507 594-2276 email: Dave_Saville@wvwise.org	Voice Editor: Bill Reed 350 Bucks Branch Beckley, WV 25801 934-5828 Bill_Reed@wvwise.org
---	--

The Highlands Voice is published monthly by the West Virginia Highland Conservancy, PO 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 WISE or 3-1/2 floppy disk by the 25th of each month.

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

REMARKS BEFORE THE WEST VIRGINIA ENVIRONMENTAL INSTITUTE

By Jayne Mardock, Director of the National Clean Air Network (October 23, 1997)
(Submitted by Don Gasper)

Air pollution is a hot topic in the news these days. This summer, EPA revised the health standards for ozone and particulate matter for the first time in more than 10 years. The EPA just issued a nitrogen oxide budget for the Eastern US, pointing to power plants to make the first big contribution to clean up the air. And President Clinton outlined his vision for reducing global warming gases. At the center of all this news is power plant emissions, which is of great concern to West Virginians.

First, I'd like to acknowledge that power plants are not the only source of pollution or solution. Cars, trucks, large industry and small businesses need to be partners in cleaning our air. But power plants are the single largest industrial polluter, responsible for 66% of the national sulfur dioxide emissions, 29% of the nitrogen oxides, 36% of the CO2, and 21% of the mercury.

Second, no one can dispute that transported air pollution is a problem, even if there is still debate on how to best address the problem and who is responsible for clean up. The 37 states in the Ozone Transport Assessment Group (OTAG) spent more than two years looking at modeling information and inventories, discussing a wide range of options for cleaning

the air in the Eastern half of the country. In the end they recommended steep reductions in power plant emissions as the most cost effective strategy to solve the problem of transported air pollution. Now EPA has acted on the recommendation of the states in OTAG, giving states a budget to meet the goals of clean air, focusing on the largest reductions from power plants.

The key pollutants from power plants are responsible for a long list of environmental and health problems, as you know. Sulfur and nitrogen oxides contribute to the formation of ozone, acid rain, and fine particulates. These pollutants cause sickness and premature death, putting millions of people at risk. They are changing soil and water chemistry that is killing our forests, lakes and streams, and affecting the wildlife that depends on them. It is wrecking the vistas at the top of the mountains as well as in the valleys of the state. In addition, the mercury and other metals emitted from burning coal are getting into our food chain resulting in West Virginia and 26 other states to have fish consumption advisories.

So how does West Virginia fit in this picture? West Virginia ranks 35th in the nation in

overall population, and yet it is 6th in the nation for SO2 and 7th for NOx power plant emissions. Those states with larger emissions - Ohio, Texas, Kentucky, Indiana, Florida, Illinois - all lie to the West and South of West Virginia, making the state a victim of transported air pollution as well as contributor to other states' problems. See Figure 1

It is important to put a human face on the problem as well. After all, we all know that cleaning up power plants or any other source of pollution has costs as well as benefits. I would argue that the polluters of West Virginia ought to clean up pollution for the citizens of West Virginia, because they do live and breathe here too.

There are 5 counties, representing 296,000 people or about 16% of the state's population, that EPA expects will not meet the new ozone and particulate matter standards, all of which are along the Ohio River. In these five counties, there are 56,000 children under 14, and 45,000 over 65 who are at risk from air pollution. That means that 1/3 of the population is at risk because they are old or young and their bodies are more susceptible to the effects of air pollution. In addition, there are roughly 19,000 people with chronic lung diseases, 16,000 asthmatics, and 4,000 people with heart disease who are most at risk according to the American Lung Association.

In Figure 2 you can see all the power major power plants in the Eastern US in relation to the size of Nitrogen emissions. The larger the dot, the larger the emissions of NOx. As you can see, Ohio River valley is totally hidden by the emissions generated by power plants approximately 900 miles from Pittsburgh to just north of Memphis.

See AIR POLLUTION on page 18

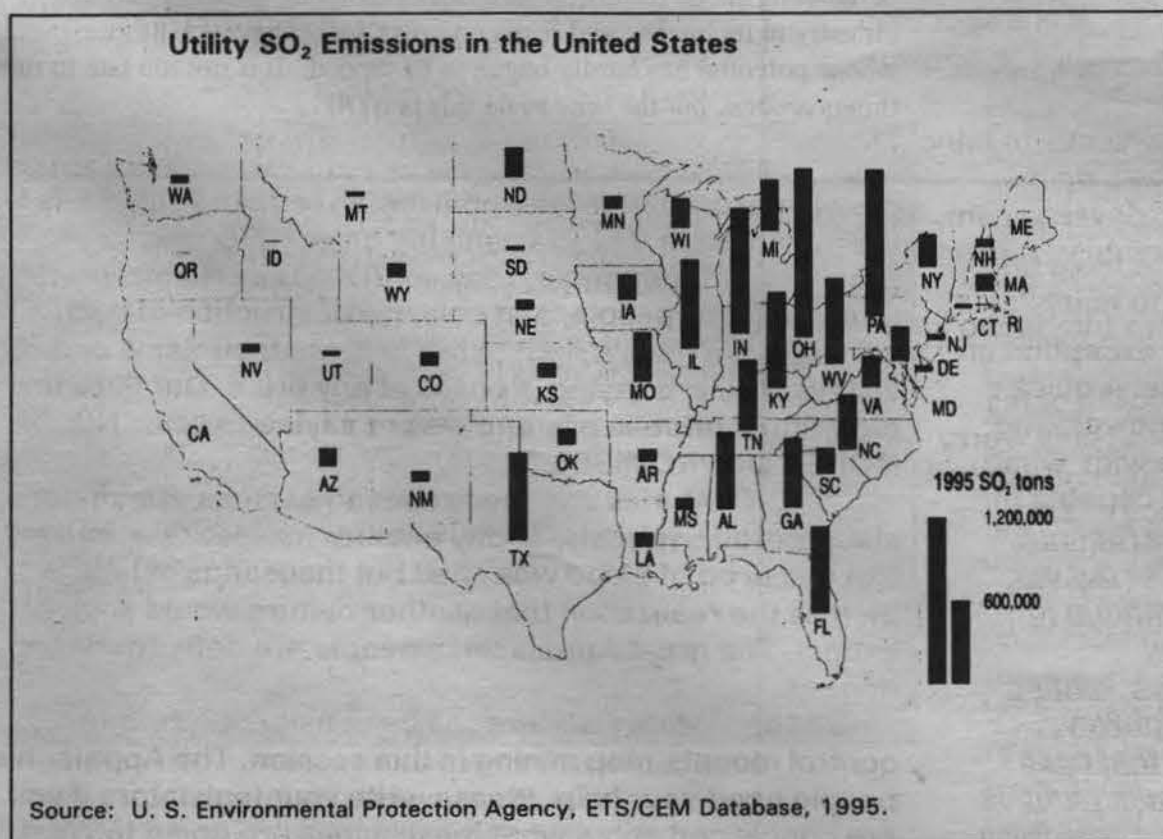


FIGURE 1



Editorial

A Throw-Away State?

I need to stop looking out of airplane windows when I fly over southern West Virginia. Looking down at the incredible number of "moonscapes" from the removal of our mountain tops for a short term benefit for a greedy few gives me a feeling of unreality which extends beyond the usual emotions associated with outrage.

By what yardstick do those who makes the decisions for our state judge such deplorable actions? Are there no more principles of decency that those in power employ? Is greed the only principle, or does this destruction of our state go beyond the usual considerations of greed? Is there a monster afoot existing beyond humanity which engulfs all, independent of the wishes or principles of any particular person or group of human beings?. Could this be a manifestation of Evil? The historical consequences for the mountain folk are poverty, lack of education, poor health, being forced off their land, having to live with the ugly scars to the once beautiful landscapes and perhaps the most insidious consequence of all, having a feeling of powerlessness that they can't do anything about their plight.

Does West Virginia exist merely for the purpose of being exploited? Its people and its lands have suffered mightily from the time in the late 1800s when the wealth of its natural coal and forest resources was first discovered by those interested in big profits.

The mountain folk have been described as independent, courageous and resourceful. If I was selling snake oil, I would find a purpose in telling my victims how I respected them for their independent thinking and resourcefulness. It is curious that I have not heard the term "gullible" used historically to describe the mountain folk. Perhaps that was part of the mythology to *not* include this obvious characteristic. For what else can one say when they've allowed outside elements to invade and snatch away from under their very noses billions of dollars worth of natural resources from lands that they originally owned?. If the mountain folk



CITIZEN from page 5

and protection on our people, was to be for the exception of hill top removal, but now it has become the rule. A quick easy way to mine coal with less time, less man power, and less concern for the land or the people. I agree with what Director Karpan stated, "It proves what we are capable of."

After 33 years of hilltop removal and more recently longwall panel coal mining, we have continued to put our nation's people out of their homeplaces. We continue to steal their heritage, we continue to destroy their watersheds, streams, woodlands, and force their wildlife down out of the hills and into their yards and highways. Ghost towns or burnt rubble with flat mounds that cast monstrous shadows over their once beautiful communities remind them of our nation's progress. (Italics and underlining done by Editor)

had played their cards shrewdly, their descendants would be mostly millionaires today. They have been "had" – there is no other way to describe it. However, this fact, while obvious, is considered a deep dark secret as was the obvious nakedness of the Emperor in the Hans Christian Anderson story. Perhaps "gullible" was a more apt term to describe a people who have allowed their lands to be taken from them by the legal chicanery of slick tricksters, to be raped and polluted by these same interests, and allowed their health and quality of life to be compromised in the name of "jobs."

Is this sad state of affairs about to come to an end? After a century of pillage I say the time is *now* for the citizens of West Virginia who are beginning to see how they've been faked out of position by the talk of "jobs" from the exploiters and their lackeys, the politicians. The time is *now* for them to exercise their power as befits the citizens of a democracy, and turn things to right. The West Virginia Organizing Project and other grassroots groups have made a promising start. I find the impassioned eloquence of Patricia Bragg in her article in this issue of the Voice to be like a cleansing and refreshing rain. May this rain build into a storm and wash away the dirt and pollution left by coal companies. May this rain build into a hurricane and blow away the Arch Minerals who lop off mountain tops and leave nothing behind but ruin in the land and the people, and the Georgia-Pacific who are instrumental in the destruction of the biodiversity of our forests and the integrity of our forest streams.

Based on Patricia's demonstrated commitment to realize her power, I am optimistic that she and the others from the WVOP will inspire others. Like a snowball rolling downhill, we need to grow. There are still some wonderful resources left in this once beautiful land. The people of West Virginia have not as yet been destroyed by the extractive industries. It is the time for us all together *now* to push coal a into oblivion and logging into sustainability. It is time *now* to demand better controls on the chemical industry, stop the growing garbage industry in its tracks, and focus on green industries such as tourism whose potential has hardly begun to be tapped. It is not too late to turn things around, but the time to do this is *NOW*.

□

growing progress of the Appalachian region. Well, if this is the government agencies and big corporations' idea of progress for our people, I say no thank you! No more relocating our people, and no more destruction of our heritage. We have a right to live in these mountains and valleys. You are saying process at any price. Our lives are too great a price to pay and we are saying to you, "NO MORE COMPROMISES."

Centuries ago there were thousands of buffaloes slaughtered uselessly. Today another massacre occurred. Not one drop of blood was shed but thousands of hearts bled as the realization that another culture would soon be extinct. The great Appalachian people are definitely in danger.

The state legislature will be considering bills to control mountaintop mining in this session. The Appalachian people need your help. Please write your legislators if you are concerned about what these mines are doing to West Virginia mountains and communities.

Citizen View from the Mountain

Hi! My name is Patricia Bragg. I'd love to tell you about a little adventure I went on January 21, 1997 to Washington, D.C. I had really looked forward to my first trip to visit my Great White Fathers. See I'm thirty-nine years and had never been privileged to darken the doors of our Capitol. So, when the Director of the Federal Office of Surface Mining issued an invitation to some environmental groups, I must say I was beside myself with joy.

We, the people of the West Virginia Organizing Project, the Ohio Valley Environmental Council, and the Citizens Coal Council, and other environmental activist citizen's groups around the nation would be able to finally put human faces (instead of statistics on paper) to the suffering and damage we are enduring from the coal industry. My faith in the U.S. Government was overflowing as I climbed aboard a van to go tell our story. I thought, "Appalachians will finally get help with some of the problems that have been plaguing us for so long. Relief from our officials will come through for us, just like the calvary of old."

Wrong, Appalachia was once again overlooked, disrespected, and humiliated at the hands of the government which swore to protect and represent us, in favor of the Almighty Coal Industry. We sat patiently and listened to hours of speeches, reports, and statistics from Coal Associations to Government Agencies. But we the people of this great country were given three people on a panel with 10 minutes each to tell our concerns and make our problems known. And with that limited time, the same people that invited us to such a meeting prevented us from completing one of our most important demonstrations of the problems of our areas. And then they waived the question and answer section from the agenda in order to break for lunch. So what did we come to Washington, D.C. for? To be again reminded that we are ignored not only on the local and state levels but the federal level as well.



To think that not too long ago perhaps 1000 or more species of plants and animals lived here!

I was devastated by it. As I hung my head with hot tears of frustration streaming down my face, I spotted the seal of the Department of the Interior on the podium. It read: "U.S. Department of the Interior - March 3, 1849," and there was a buffalo grazing in a field. At that moment I felt very much like that buffalo on that seal. Appalachians are close to extinction and definitely a dying breed. Of course that is just an American culture and our natural way of life being destroyed. Oh, pooh!, shall we carry on and have that 20 thousand dollar fund-raiser for the preservation of the Great White Whale or perhaps we'll do it for the walrus this time.

I have nothing against protecting our wildlife or marine life but Appalachia has endangered wildlife too. For that matter we have water, air, homes, streams, land, and the very quality of our lives being endangered in the coalfields. But, don't be upset, you are too far removed from all this ugliness. You have your concrete jungles with your air conditioned offices and your city water and sound structures to reside in here. And if you continue to look the other way, Appalachian culture will soon be gone just as the great buffalo herds of the West. Oh, but there will be PROGRESS, PROGRESS, PROGRESS, or should I say \$,\$,\$. After all, the blood of America still runs green and the influence of it still motivates Americans to strive for The Great American Dream.

This dream for the people in the coalfields has become our nightmare and no one is willing to wake us to a better day. Appalachians are labeled as passive, clannish people that are content in the backwoods of the mountains. They're suspicious of government and big industry. I say, why not? We have been for centuries abused, used, oppressed. But our concerns are seldom addressed by the powers that be. You know, I find Appalachians are also passionate, hard working, courageous people with a deep love of family and their land.

These family oriented people have become frustrated with the total disrespect we receive from the nation we have lived, fought, and many times died for. Oh, did I mention Appalachians are also terrific fighters, stubborn, and determined people? My people do not back off when we have taken all the abuse we can stand. That's where you find most of us now, on the front-line of a war for the salvation of Appalachian culture and we will not back off, we will not compromise. But we will continue to speak about the tremendous destruction of our land and way of life we hold so dear. We are hillbillies, hill people that are holler raised, and we are proud of it. As the Director of the Bureau of Land Development stated during our meeting Wednesday: "We are proud of our status and we will not tolerate acts of violence and disrespect against us."

I came to you in Washington for help and to gain an understanding between the government, coal industry, and the private citizens. That apparently is not what others set their goals for. We don't have proper enforcement of regulations in place to protect our people and environment from harm. With all the OSM budget cuts, there is very little time spent on the common man. Even SMCRA has deserted us. The intent of the law that placed minimum regulations

THE FOREST CANOPY AND FLOODING

By Don Gasper

Summer effects of the forest canopy in reducing stream flow by 75% are important in offsetting the very fragile nature of today's streams and watersheds. The forest canopy reduces the danger of floods in summer - this is important because in summer hurricanes and stalled frontal rains can occur over a wide area. The summer air mass is warmer and can be expected to hold and carry more moisture. Also local heavy rainstorms occur. Summer rains amount to 14, or 70% of the 20 great storms recorded at Parsons, West Virginia.*

The in-stream flow processes, no longer greatly controlled by the over 10,000 year old Eastern Forest, is an ecological process still running out of control since the Forest's destruction by its first logging, fires and erosion. The high flows that largely govern our stream channels today were never seen in the original forest. Today's stream beds are wider because of the great flows and erosion that followed in those few years after the first logging and fires -- before tree regrowth and the canopy again established its structure and function. The essentially clear-cutting of the eastern forests reduced the canopy from over 90% to less than 10%, and because of the reduced interception and evapotranspiration for ten years or more stream channels greatly enlarged. Additionally all the tree tops and

the deep forest floor burned more deeply than ever before. In many places, even the organic topsoil was turned to ash and blew or washed away; and the subsoil being slow to revegetate could wash away under direct rain drop impact, particularly on slopes, before it could revegetate.

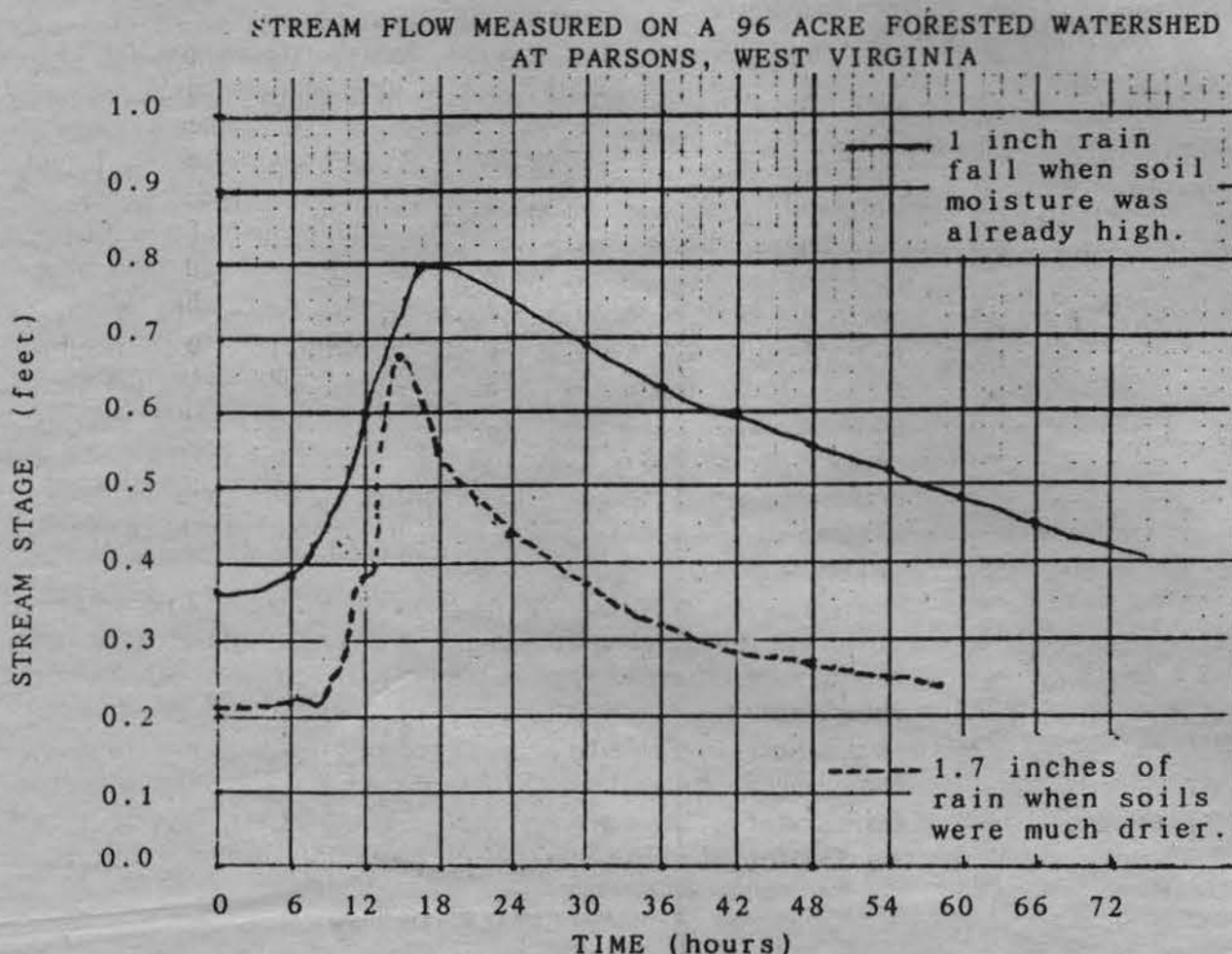
Like a one-two punch the direct effect of the loss of the canopy and then the loss of sponge-like forest floor and soil - is greater runoff. This has resulted in greatly damaged streams and forests. The stream bed dynamics we see today are an accelerated geological erosion rate caused by the first logging and fires 100 years ago. We are used to seeing such dynamic gravel bar movement as sediment waves, bank erosion and tree topple. While there is no contrasting measure of whether such a stream erosion rate is "natural" or "great"; it is generally known we do not today have the sponge-like ability of the original forest floor and soil to hold rain and snow melt. Also most of our watersheds are considerably deforested due to settlement and logging. Unfortunately, most experts feel all too comfortable with the knowledge that today's stream beds are still destabilized and fragile - that they have not recovered. Further, the dynamic stream beds of today reflect watershed fragility that is masked by

what appears to be superficially a recovering forest. The integrity of such fragile stream beds will be destroyed, and watersheds will be damaged further by canopy reduction.

Leaf canopy closure and development results in evaporation and transpiration of over half the annual rain and snow. At Parsons, West Virginia, the U.S.F.S. found that of their annual 60" of rain and snow, 7" is intercepted by the canopy and evaporates never hitting the ground. Another 20" is transpired by tree roots through the canopy. Also 7" is lost to deep seepage. They only measure 25" being carried in stream channels of fully forested watersheds. This can be expanded state-wide with little error, and the conservative statement is justified that stream channels of forested watersheds immediately below proposed clear-cuts would have to carry over twice as much flow as they do now. At Parsons, if now carrying the 25" of rainfall, the streams below clearcuts would carry 25"+20", and actually the intercepted 7" also for 52".

These are yearly values. In the paper "Effect on Streamflow...", researchers at the Fernow Forest state (on page 7), that the 9 year average evapotranspiration is 34" (20 + 7 + 7 lost) annually, varying from 37 to 24 on their 5 watersheds. That same page shows that during the growing season, the period of interest, the runoff is only 23%, and it may be said then that over 3/4 or 75% if the summer precipitation, from May 1 to October 31, is evapotranspired, it does not even reach stream channels under the condition of there being a continuous canopy over the entire watershed. The canopy effect is shown in the figure where a larger summer rain (1.7") produced a smaller peak than a smaller rain (1.0") in February and produced a higher flow. Much such data exists showing the underappreciated effect of leaf evapotranspiration.

See FLOODING on page 10



AT PLAY IN THE FIELDS OF THE LAW

by Hugh Rogers

Old Fields. Corricks Ford. Greenland Gap. Big Run. These West Virginia places have in common their previous obscurity--known to neighbors and specialists, but not to the rest of the state--and the fact that each of them is threatened by a single project, Corridor H. Fame, of course, is ambiguous. Anyone who cares about such special places would not want them overrun. Yet we love to share them. And we are compelled to protect them.

On December 15, 1997, the Keeper of the National Register of Historic Places declared Old Fields, in Hardy County, eligible for protection as a historic district. In a letter to the Federal Highway Administration, the Keeper wrote that the district contained "the best collection of mid-19th century architecture in West Virginia." Its unusual long lots give the properties equal access to the South Branch of the Potomac. The area preserves the appearance of the plantation economy and the two Civil War battles fought there.

Running a four-lane highway through the middle of the district would be incompatible with its values. And federal law restrains the federal government from doing such a thing. Except. The exception applies if there is no "prudent and feasible alternative." That will be the next battle. The Division of Highways has never conceded that there could be an alternative to its monoplan. The DOH motto is not "Montani Semper Liberi," but "Four Lanes All the Way."

Corridor H has always been soaked in politics. Agencies charged with reviewing its impacts have felt pressure to give the project a pass. The Keeper's office is in the U.S. Department of the Interior. Last October, during the Old Fields evaluation, Governor Underwood wrote to Secretary of the Interior Babbitt: "Currently, one of the most controversial properties along the Corridor H alignment is pending before the Keeper. Accordingly, I would like to meet with you to share my comments about the Keeper's role as soon as possible."

Credit the Keeper and the Secretary for resisting. The DOH and the State Historic Preservation Office made their arguments; historians and landscape architects chosen by Corridor H Alternatives presented their views. CHA is an official "consulting party" in the evaluation process. After the Keeper ruled, the

Governor accused CHA of "subverting the democratic process."

Officially, though, the message is upbeat: "Let me say clearly and definitively, we are going to build Corridor H, and I pledge every resource of this administration to that end." The quote is from the 1998 State of the State address. It hardly matters. Governors have said the same thing for thirty years.

The reason for the project hasn't changed either. Our current governor says, "It will serve the one large area of West Virginia without access to a four-lane highway." Do we need a four-lane here? Can we expect that much traffic? Is it an effective way to deal with the Highlands' transportation problems? Is it worth the damage? Doesn't matter. For governors (and senators and other politicians) four-lanes are intrinsically good. If you have a four-lane in your area, you're supposed to be happy.

Here in this one large area, we're happy it's still not a done deal

For a post script on this article, Corridor H is on hold again. We should offer our thanks and our dollars to the consistent and enduring actions of those valiant warriors who resist the illogic inherent in those who support the building of this road. In the Federal Court case, the US Court of Appeals has set an argument date for sometime in September of this year. ■

BLAST from page 14

The most vocal supporters of the bill have been the members of the West Virginia Organizing Project. The Organizing Project is a citizens' group whose members are committed to working together to improve their communities. Its headquarters is in Logan and most of its members live in southern West Virginia.

At the public hearing on the bill, West Virginia Highlands Conservancy president John McFerrin and Mining Committee chair Cindy Rank spoke in favor of the bill.

At press time the fate of the bill was still unknown. □

Cabot's Natural Gas Threat to the Mon

The Cabot Oil & Gas Corporation has made a proposal for a seismic survey in the Spruce Knob Unit of the Spruce Knob - Seneca Rock National Recreation Area of the Monongahela National Forest. A "seismic survey" requires the use of small explosive charges. Monitoring the vibrations from these explosives, including vibrations reflected by various rock formations, may provide indications of the presence of minerals such as oil or natural gas.

This proposal is controversial for several reasons. First, exploration for natural gas implies a long range plan to develop that natural gas. Many contend that gas development on the Monongahela National Forest is inappropriate because its effects are far-reaching and complex, and are known to degrade rare, unique, and special recreational resources. Gas development is, to various degrees, at odds with the semiprimitive nature of many recreational experiences on the Monongahela National Forest. The Forest's recreational and intact forest habitat values far outweigh the benefits associated with additional gas development.

Second, gas development would in all likelihood require construction of roads, many of which would be in areas that are currently roadless. Roads negatively alter interior forest habitat, fragment populations of many species, act as conduits for invasive, often exotic species, degrade aquatic habitats, and are aesthetically ugly.

Third, deep shot detonations, in particular, have the potential to alter groundwater flows and, subsequently, alter surface flows (springs, seeps, stream recharge). Potential changes in springs and seeps may alter the structure and function of terrestrial plant communities associated with these areas.

The controversy surrounding the current proposal is exacerbated by the failure of Cabot Oil and Gas to carry out Forest Service recommendations at previous gas survey sites. A recent visit to previous sites revealed that shot holes had not been filled as directed. Neither had the mitigating measures in the riparian wetland area adjacent to the East Fork of the Greenbrier River been carried out. Contrary to Forest Service recommendations at previous sites, the trash and blasting debris from these previous explorations had not been removed but was left on site.

The Forest Service received public comments until mid-January, 1998. As of press time there had been no decision on whether the proposed seismic survey will be allowed to proceed. ■

WVHC Appeals PSC Decision

The West Virginia Highlands Conservancy and the other Petitioners have filed an appeal to the West Virginia Supreme Court of the recent decision of the Public Service Commission concerning Blackwater Canyon.

In their petition, the Petitioners had contended that the sale of Blackwater Canyon to its present owners was illegal. One of the companies who sold the land is, according to the Petitioners, a public utility. As a public utility, it may not sell land unless the Public Service Commission has determined that the sale is in the public interest. The seller neither sought nor received such approval.

The Public Service Commission ruled that the seller was not a public utility. Because of this, the Public Service Commission concluded that no approval of the sale of the land was necessary.

In their appeal, the Petitioners contend that the Public Service Commission viewed the seller too narrowly. It is true that the nominal seller of the land is not in the business of selling electricity. In this narrow view, the seller of the land and the company which markets the electricity are different. If one accepts this narrow view, the seller of the land is not a public utility.

The Petitioners contend that a broader view is more realistic. The company selling the land and the company which markets electricity have the same owners, officers, and office facilities. Each is part of an integrated whole that operates as a single unit. A conclusion that they are different companies is true only in the narrowest view of corporate formalities.

The Petitioners contend that the Public Service Commission should have considered this family of integrated companies as a single company subject to its jurisdiction. At a minimum, the Public Service Commission should have allowed the Petitioners to present evidence of the extent of this integration.

The result of this appeal could have implications for other land in the mountains of West Virginia. The sellers who were involved in the sale of Blackwater Canyon also own land in the vicinity of Canaan Valley.

An April hearing date has been set on the appeal. On that date, or shortly thereafter, the Court will in all likelihood either reject the appeal or schedule the case for further proceedings. ■

Valley Fills Mitigation Bill Unwise

(This is from a Charleston Gazette Editorial of January 20, 1998)

WHEN strip-mine companies lop the tops off entire mountains to get at the coal underneath, the environmental damage is obviously immense. The harm is compounded when the "overburden" or "spoil" (you know, that stuff that used to be a mountain) is dumped in valleys, usually destroying streams and headwaters in the process.

These huge projects make it much more economical to mine coal, allowing large amounts to be dug with very few miners. These projects are one reason why mine owners now extract record tonnage with only one-fifth the number of miners they employed in the 1950s. But coal firms are supposed to pay a price for the havoc they wreak on the environment. A \$200,000-per-acre mitigation fee for valley fills has been that price for years. The money goes to a fund that is supposed to be used for water-quality improvement projects, such as stream restoration, around the state.

Coal companies want the Legislature to reduce the fee.

A bill introduced last year would have granted broad latitude to the state environmental protection director to decide what the mitigation fee should be, capping it at \$50,000 an acre. Luckily, that bill didn't pass, but it has been reintroduced this session, as Senate Bill 145. A public hearing on it is to be held at 1 p.m. today before the Senate Judiciary Committee. The public should voice vociferous objection to this bill, which would give Director Jack "We in the industry" Caffrey huge discretionary powers. Caffrey favored reducing the mitigation fee to a ridiculous \$10,000 an acre.

Under this legislation, Caffrey could accept any half-hearted attempt at water-quality mitigation by the industry. The bill gives him enormous latitude: "The division shall accept mitigation on the permitted area, mitigation off the permitted area, mitigation banking of waters of the state, or any combination thereof, or any other mitigation measure acceptable to the division."

Caffrey could waive most protection requirements, and even accept \$10,000 an acre or less for a mitigation fee if he chose.

Worse, the bill appears to give the Legislature the authority to divert the mitigation money to uses other than stream restoration.

Most regulators admit they don't know the long-term ramifications of valley fills on water quality in mountain streams. The U.S. Environmental Protection Agency wants valley fills approved only if there is no feasible alternative. Yet the Legislature is considering this bill, which would actually encourage more valley fills by making them less expensive for coal companies.

Mountaintop removal is mushrooming already, causing huge disturbances to nearby communities and turning beautiful mountains into moonscapes. Last year's U.S. News & World Report feature on mountaintop-removal mining in West Virginia painted a devastating portrait of the practice.

The Legislature should have nothing to do with making it easier for coal companies to destroy mountains and fill valleys with the residue. This bill should be buried.

(The following is a correction to the above editorial)

IN A TUESDAY editorial, we said state Environmental Protection Director Jack Caffrey supports efforts to lower mitigation fees for huge coal industry "valley fills." We based that statement on reports last year that he favored "reconsidering" a decision by former Director Eli McCoy against lowering the fees - which implied that Caffrey wanted to reduce the fees.

In fact, Caffrey has not publicly supported cutting the fees, currently at \$200,000 per acre, nor does he support an industry-sponsored bill that would cap mitigation fees at \$50,000 an acre and grant DEP huge discretion in deciding what mitigation efforts to accept.

"Legislative action is premature," Caffrey said Tuesday. A committee of representatives from the Department of Natural Resources, the U.S. Environmental Protection Agency, the Office of Surface Mining and DEP have been meeting since last summer to study the issue, Caffrey said.

Legislative action should wait for that committee's results, which will be followed by discussions with the coal industry and the public, Caffrey believes. We agree.

□



Mountaintop Removal at Core of Debate

Bill That Would Lower Mitigation Fees by 75% Irks Some Landowners

By Phil Kabler, Gazette Staff Writer
(This news article appeared in the Charleston Gazette on Jan. 21, 1998)

State officials joined with environmentalists and landowners to raise objections Tuesday to a bill that would reduce mitigation fees imposed on coal companies that conduct mountaintop removal projects. Officials with the Division of Environmental Protection and the Division of Natural Resources raised objections to the bill during a Senate Energy, Industry and Mining Committee public hearing.

Roger Anderson, DNR wildlife biologist, said the bill would impose changes that create inconsistencies with the federal Clean Water Act, possibly severe enough to lead to federal intervention. "That will cause significant problems with the coal industry," he said.

Mark Scott, DEP deputy director, agreed that the bill - identical to a Senate bill that died on the final night of the 1997 session in a House-Senate conference committee - has potential conflicts with the water act. He said more study of the effects of mountaintop removal and the subsequent valley fills are needed before changes in the law should be considered. "None of us fully understand the impact of placing valley fills, and what that means for the biological impacts," he said.

Bill Raney, with the West Virginia Coal Association, said the bill is needed to help the state coal industry stay competitive in a world market. Mitigation fees of \$200,000 an acre "adds substantially to the costs of mining coal in West Virginia." The bill would cap mitigation at no more than \$50,000 per acre of stream disturbed, among other changes. "This straightens out a critical inequity in the mining of coal in this state," Raney said.

Most of the speakers Tuesday were environmentalists or homeowners who live near mountaintop removal projects. "Our concerns are real-life, everyday," said Ralph Preece of Dry Branch, Mingo County. "Mountaintop removal is destroying our community."

John Taylor, a Rand lawyer, objected to any reduction in mitigation, noting, "I cannot see how any amount of money can replace something that's precious and irreplaceable."

K.O. Damron, lobbyist for Massey Coal Services, said the environmentalists were rehashing old objections over strip mining, instead of addressing the bill. "What I've heard is all the reasons why there shouldn't be surface mining in West Virginia," he said. "That isn't the question here. That was put to rest with the abolitionist movement 30 years ago." The real issue, Damron said, is that, "We're talking about tens of millions of dollars being collected from coal companies, and only from coal companies."

Also Tuesday, the Senate unanimously approved, on voice vote, a House Concurrent Resolution urging President Clinton not to sign the United Nations Kyoto treaty on global warming. Sen. Don Macnaughtan, D-Wetzel, was not in chambers when the vote was taken. The treaty, which calls for significant reduction in greenhouse gas emissions by 2012, would cost West Virginia 11,500 jobs in the coal and natural gas industries, according to Sen. Frank Deem, R-Wood. Deem argued that scientists themselves are at odds over whether global warming is actually an environmental threat. "It's a political issue. It's Al Gore's vehicle to become president of the United States," Deem said.

Senate Judiciary Chairman Bill Wooton, D-Raleigh, said politics has nothing to do with it. "The treaty this resolution addresses is not good for West Virginia, and it is not good for the United States," he said. "It's a nonpartisan issue, and it's wrong to inject the vice president into it."

Approved by the House last week, the resolution represents the official opinion of the Legislature, but carries no other weight of law.

□

New Study Confirms Catastrophic Forest Decline in Appalachia

Action to Reduce Acid Rain and Ozone Pollution Urged

(From a press release of the Lucy Braun Association for the Mixed Mesophytic Forest)

Washington, DC - A study was released February 12 by the Appalachia Forests Action Project that reveals trees are dying at 2 to 4 times expected rates in forests that extend from Alabama to Pennsylvania on the west-facing slopes of the Appalachians. Tree mortality rates were highest, up to five times historic norms, in areas exposed to higher levels of acid rain and ozone pollution.

particularly in *West Virginia* [italics added. And who might we hold responsible for the killing of our forests? Ed.] and adjacent areas.

The report, "Patterns of Forest Health: A Report on citizen Monitoring in the Eastern Mountains," warns that we could see as much as 20% loss over the next decade. The report concludes that "this ... increase in [tree] mortality rate, extended over decades, as appears to be the case, would have catastrophic consequences for private property value of timber lands, biodiversity and its maintenance, and the capacity of forested landscapes to provide common ecosystem services."

Historically, tree mortality rates average 0.5% annually, or 5% a decade. (The historic range is 0.2% to 0.8% annually in comparable forests). Overall, the forest areas sampled in the study are losing trees at the rate of 2.0% annually, or 20% a decade (varying from near normal on dry sites in Alabama and Tennessee, to 0.9% in Kentucky, to over 2.5% at higher elevations in West Virginia).

The report notes that since the 1960s. The study area has been subjected to high levels of acid precipitation and ground level ozone pollution, particularly toward its northern end. Data on annual wet sulfate deposition and ozone show heavy pollution in West Virginia, Ohio and Pennsylvania, where the study found the highest levels of tree death.

"A 2% annual rate of tree death may not seem catastrophic, but that means losing 20% or more in a decade, or potentially 100% in 50 years," said Lowell Dodge of Trees of the Planet, a project co-sponsor. One project organizer, John Flynn, before he died in 1996 stated: "Its like the forest has AIDS. Its immune system is shot."

"The only plausible causal agents extending over such large areas are pollutants from the burning of fossil fuels, particularly ground level ozone and acid-forming oxides of sulfur and nitrogen," said Orle Loucks, principal study science advisor. "Nitrogen emissions from cars and power plants must be reduced, as well as the sulfur emissions," he added.

The report is based on data collected by the Appalachia Forest Action Project between 1994 and 1997 from 227 study plots in 40 forested counties spread over 7 eastern states.

□



GREAT CITIZEN CONCERN FOR THEIR ENVIRONMENT AND ENVIRONMENTAL EDUCATION

By Don Gasper

1,501 adults surveyed recently and reported by The Conservation Fund in their February 1998 News Letter indicated that teaching environmental education in schools receives near unanimous backing - 95%.

The January 1998 Highlands Voice carried an alarm about corporate propoganda in the classroom, and the assault on eco-education. It is worth re-reading; its first two paragraphs are a good introduction.

"Environmental education got its start with Junior Audubon Clubs in 1910, but it received its biggest boost in 1990, when President George Bush added a grant-making Environmental Education Division to the EPA. A dozen states now require environmental education in grades K through 12.

Critics like Jonathan Adler of the Competitive Enterprise Institute complain that environmental education is 'taking advantage of students' natural curiosity about the world and transforming them into activists.' Meanwhile, cutbacks in education are forcing schools to rely more and more on free teaching materials supplied by corporations, many with poor environmental records." [Editor's interjection: One of the very worst companies in our area for environmental polluting is American Electric Power. Given special dispensation to pollute by EPA - they are

exempt from meeting the standards of the Clear Air Act - their ploy is now to sell electricity in those states to the east of this region who have electric utilities that have to meet the Clean Air standards. What did you think all the fuss was about with them wanting to rape the land by putting through a 760 kv line from Oceana, through Wyoming county and now through a number of scenic Virginia counties to a relay station near Roanoke? They have a competitive edge thanks to special consideration from the US government, and they want to play it for all their worth. Every month in the *Consumer Circuit*, a bit of information and disinformation that comes out with the billing -- they are careful to do their best to play the "concern for the environment" game. This month they kick off with a lead article called "Energizing Education." What they're up to this time is to "broaden the knowledge" of K-12 teachers. During the summer they "offer 14 seminars on topics such as energy, electricity, the *environment* (italics added), economics and education technology." Wouldn't you love to be a fly on the wall during their *environment* seminar to witness the skillful way in which they will disseminate misinformation?]

Also later in the article, it was pointed out that corporations simultaneously are sending out anti-environmental propoganda disguised

as "balanced" lesson plans - free. Think-tanks (termed mostly "conservative") are producing even books. "Facts not fear" is a scandalous distortion, and a classic example of the misinformation that Dr. Paul Ehrlich warns us about in the Ehrlich's latest book.

Further, the article in The Voice, so reliably researched, informs us there is an alliance of over 500 groups that suggest: "The environmental education campaign (of EPA) is aimed at turning our nation's school children into environmentalists", and "kids hear in school...exaggerated claims about the environmental crises", and "evidently the EPA does not want to educate students, but rather indoctrinate them to blind obedience to federal policies."

Finally the article alerts us to the fact that the U.S. Congress is now considering the reauthorization of the act that would control the EPA Environmental Education Program. The EPA Environmental Education Division's program consists of a grant program, a teacher training program and a foundation. Those who care about real environmental education, and this survey poll indicated it is 95% of ordinary citizens, have an opportunity to inform Washington this is needed more than ever -- 95% of us think so.

See EVIRO ED on page 17

FLOODING from page 6

These reduced summer floods are what forest streams are forced to carry today, and greater flows due to deforestation would be destabilizing. It may be that today's 100 year old forests are generally growing more slowly, and the evapotranspiration of this long closed canopy is everywhere a little less. This makes today's watersheds more flood prone. For two prior generations of human observation, with an expanding forest canopy, we had become accustomed to this under-appreciated more rapid evapotranspiration rate of a rapidly growing young forest. Only now are we surprised by the recent flooding we see from an older forest. Today, also with a reduction of forest canopy by logging and settlement, we have to be more protective of the forest canopy and understand more its effectiveness in reducing flooding.

Our forced response has been to channelize stream reaches to keep these from flooding. Speeding flow through channelized reaches, of course, causes generally more flooding below - and can cause erosion above by lowering the base. Channelization is an important concurrent problem also. It is a poorly considered response to flooding. Is there an initial cause? Is it the loss of the forest canopy in these watersheds?

Note:* The question still remains, what good will it do to reduce flood occurrence by 3/4 if in winter streams are still subjected to great floods.

□



Hello Dave, and Richard, don't get too far away!

As most members know by now, Richard DiPretoro has resigned his position as Administrative Assistant. After much agonizing, we have chosen Dave Saville to replace him. We had many applicants, any one of which we would have been happy to have chosen to fill the position. This made the decision difficult.

Dave is trained in forestry and wildlands management. He brings experience with several environmental organizations in West Virginia as well as previous employment managing a database, biological research, and forestry. He lives in Morgantown.

My Swan Song as Administrative Assistant By Richard S. diPretoro

February 28, 1998

As of the end of February, I have turned over to Dave Saville the job of administrative assistant to the Conservancy. The change became inevitable when I moved to Pittsburgh from Morgantown a year ago. As I leave the job, I take this opportunity to say Welcome to Dave and to write about my experience and about the Conservancy from the perspective that the job gave me.

I was the first person in this job, starting in May 1994. Then-President of the Conservancy, Cindy Rank, conceived it as a way to ensure that the miscellany of Conservancy business got taken care of, and also to launch needed initiatives, facilitate committee activities, etc.

The job has been good to me. I tend to act as a lone wolf, keeping to myself in my office. The job forced me to both make and receive calls, which I invariably enjoyed after I got started. I also felt ill suited to the hospitality aspects of the job, organizing Reviews and meetings. But again, that served to bring me out of my shell. The hospitality business is a growing and important part of West Virginia's economy and that made it more interesting to me.

I also remember having anguished thoughts about falling so low from my vaunted consulting position that I would need to take a menial job (and it IS menial at times). Stuffing envelopes! But I have a Masters Degree in Science! Then I remembered Ghandi spinning thread each day.

I enjoyed working with the database, analyzing our members' geography, issue interests, and membership levels.

I thank the Board for its support and indulgence. This position certainly helped me stay in the environmental consulting business and make myself available pro bono to citizens groups more so than I otherwise would have.

The Conservancy is a great organization for a number of reasons. It relies upon itself. It has avoided entanglement with any regional or national groups. It gets its funding chiefly from memberships and sales of its very successful Hiking Guide to the Monongahela National Forest. It has never relied on grants for its own funding. This has given the Conservancy an enviable independence. The press often looks to the Conservancy for perspectives on the environmental issues of the day. Beyond providing for itself, the Conservancy has served as an umbrella group, fostering and handling numerous small grants for other organizations

As I leave, what is my advice to the Conservancy? It's a cautious blend of "if it ain't broke, don't fix it" and "don't rest on your laurels." The Conservancy has, through a combination of design and luck, struck upon a formula that has provided an invaluable and unique independence. The Conservancy can speak out without fear of treading upon a parent organization or funder.

But there are challenges ahead. The Conservancy membership is aging. In the last year, I received several notices of members having died, probably more than in the previous three years combined. A dwindling number of our active members have children at home. Although we don't ask people for their ages, the average age of our members must have crept up steadily for many years. We need to attract more members generally and to retain younger members in particular. Part our strength lies in the age, wisdom, and longevity of our members, but we can't ignore the need for rejuvenation.

The Hiking Guide continues to sell well because it provides a needed service with little competition. But competition is growing and sales could sag without some attention to wider distribution. Throughout the mid-Atlantic region, there are literally hundreds of additional outlets where it would sell very well.

For those of you that don't know, the Conservancy has an Endowment Fund with a balance currently exceeding \$30,000. With a little consistent attention, the Endowment could provide the foundation for continued growth and influence for the Conservancy.

I have focused here on the three-legged stool of Conservancy financial underpinnings: membership, Guide sales and the Endowment. I have said little about issues. I take it as a given that the Conservancy will continue to formulate, announce, and act on positions on the important environmental issues of the day. Members need to support the Board and the editor of the Highlands Voice, Bill Reed. Let the President, John McFerrin, and Board members know how you feel on issues. Attend meetings. Crank up your membership level a notch or two. Have fun at a Spring or Fall Review. Write for the Voice. You are the Conservancy.

Let's keep doing what has worked while adapting to the times.

□



Gazette Supports State Acquiring Blackwater Canyon

BLACKWATER Canyon is one of the most beautiful places in a state filled with beautiful places. Lindy Point, a rocky overlook with a fantastic view of the canyon, is featured in many videos and brochures put out by the West Virginia Tourism Commission.

But Lindy Point is not in public hands. It is part of a large chunk of the canyon currently owned by John Crites and Allegheny Wood Products.

Crites and his company want to log parts of the canyon, marring the view and perhaps ruining chances for West Virginia to be involved in the coast-to-coast American Discovery Trail, which Sen. Don Macnaughtan, D-Wetzel, said is currently routed through Blackwater Canyon.

Sen. Oshel Craigo, D-Putnam, introduced a resolution earlier this week, urging the state to acquire all of the canyon and preserve it from logging.

The opposition was vociferous. Sen. Robert Plymale, who works in the wood products industry, replied: "I do believe there is enough land in this state that is owned by the state government, that is owned by the federal government, that we have preservation."

Sen. Sarah Minear, R-Tucker, showed she's out of touch with her own constituency when she claimed that "Tucker countians want Allegheny Wood Products in their

Hear This, Bill Maxey!

From the *Dominion Post* of 1-25-98, posted on WISE by Adam Polinski

CHARLESTON (AP) -- West Virginians want the state to buy more land for parks, shooting ranges and river access ramps, according to a government-sponsored survey.

Just over 80% of respondents to a poll conducted by Responsive Management, of Harrisonburg, Va., said they support state Division of Natural Resources attempts to acquire more public land.

Only 3% said they strongly opposed such purchases, a result that conflicts with complaints by several state lawmakers that the division has been buying too much land, said agency Director John Rader.

Rader called the survey's results encouraging and said, "These programs will continue to be a high priority for the division."

county. We need the jobs, and we need the tax base from having a private company here."

But Sen. Jon Blair Hunter, a Democrat whose district includes Tucker County, found that 55 percent of Tucker County residents he polled favored acquisition of the canyon.

If Minear thought it through, she would realize that Tucker County receives much more economic benefit from the many visitors Blackwater Canyon attracts than it does from the handful of low-paying, dangerous jobs provided by timber companies.

Some tried to mislabel this as a private property issue, which is a line adopted by the Underwood administration. But no one is talking about taking property from Crites. He would be compensated, either by buying the property outright, or, less desirably, in a land swap.

West Virginians who want to save all of Blackwater Canyon and regain public access to the incomparable Lindy Point should call their legislators and urge support of this resolution, which is also being introduced in the House of Delegates. (From a recent *Gazette Editorial*).

□



Since 1989, the division has bought more than 49,000 acres and set up 11 new wildlife management areas. It also has built 22 shooting ranges, 46 boat ramps and 38 structures to help make recreational areas more accessible to the disabled.

Most of the respondents who want more recreational land and facilities use them, according to the survey.

Nearly 70% of the poll's participants said they visited public land in the past year, and most were satisfied with the conditions of the facilities.

The survey also asked about problems the agency should treat. About 75% said more money should be spent cleaning acid mine drainage damage to streams. ■

CANYON from page 1

"save the Blackwater Canyon" stickers adorned hundreds of folks rallying under the golden dome that day. We collected over 200 hundred signatures asking legislators to save the canyon. At the end of E-Day we photocopied these petitions and delivered them to the offices of everyone on the House Rules Committee and the Senate Judiciary Committee, where the resolution now languishes. Only public pressure will bring the resolution onto Chamber floors for a vote.

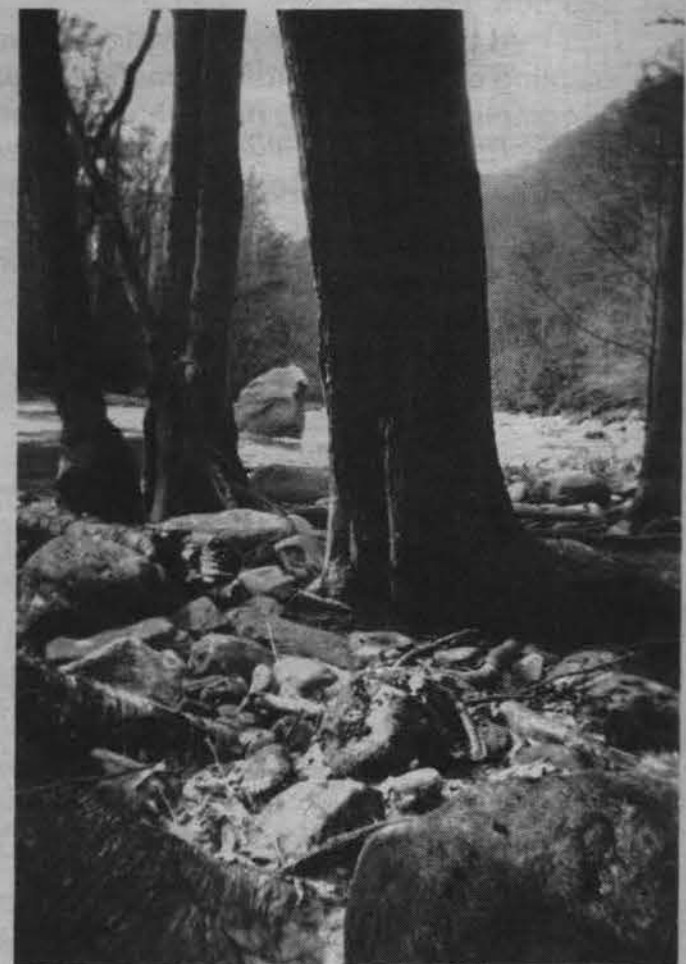
The next phase of our campaign include educational radios ads, continued public pressure, continued media coverage, and a push for meetings with Mr. Crites, Governor Underwood and Senator Rockefeller. Of course, fund raising is included in our strategy. The campaign to save the Blackwater Canyon is costing us, folks. Please send your contributions to: West Virginia Highlands Conservancy P.O. Box 306

Charleston, WV 25321

Please write "Blackwater Canyon Campaign" on your check.

We are fighting to protect one of the last best places in the East. Please help us save the Blackwater Canyon.

□



Rock, tree, river
deep in the Blackwater Canyon
photo courtesy of Jim Sconyers

HYDROLOGICAL EFFECTS FROM URBANIZATION OF FORESTED WATERSHEDS IN THE NORTHEAST

Adapted from a U S Forest Service booklet (Research Paper NE - 146, 1969) by Don Gasper

With greatly increased flooding in West Virginia in recent years, any factor that can show light on the problem should be aired. Today urbanization is even a more widespread problem than when this study was done. More up-to-date publications surely exist with more study results (1), however, the principles discussed still hold for the present day.

Urbanization creates a new hydrological environment. Important ecological processes become dysfunctional. There has been a flip-flop between infiltration, important prior to urbanization, and afterward runoff and its flooding. Asphalt and concrete, and rooftops replace forest trees and soil. Storm-water sewers replace stream channels. All increase runoff, and the important flood peaks that cause stream channel erosion and destruction of channels, property, and lives.

Sprawling cities and suburbs with their transportation systems, reduce infiltration. Of West Virginia's land area about 10% is in metropolitan areas of over 100,000 people (in 1969). For every 1,000 increase in urban population about 238 acres of field and forest are lost (2).

As urbanization progresses, field and forest

become 28% residential, 25% roads, "other public areas" 20%, vacant 12%, industrial 11%, and commercial 4%. Of this 100% over half are surely impervious surfaces that increase rapid runoff that generally tend to increase damaging peak flows. Some extensive suburban residential areas, like city parks, have only 12% of their surface impervious, but commercial and industrial areas have surface areas that are 100% and 90% impervious, respectively.

The term "evapotranspiration" means rain and snow that is intercepted and "evaporates" without even hitting the ground, plus the "transpiration" of vegetation roots in picking up soil moisture and transpiring it up and out their leaves for their nutrition. Pavements we know do evaporate too, but when the rainfall and/or snow-melt is substantial, it soon begins to run off. Evaporation from these and grassy areas combined reduce runoff only by 13%. (At Parsons, West Virginia, annual evapotranspiration is 34 inches, over 50%; and forest trees in summer reduce runoff by 75%!).

The infiltration rate is zero on pavement but unlimited on undisturbed forest floors. However it can be compacted, and "10 to 20% of the forest floor is commonly seriously compacted when it is logged." "Undisturbed

forest floors and soils ranging from 2 to 5" deep", and when dry, can retain 4 to 10 inches of water" (3). The authors state further, "Their storage potential, particularly during the frequent dry periods in summer, is such that very little summer precipitation reaches stream flow or the groundwater table." This is due to the forest leaf canopy evapotranspiration in the growing season drying the soil and increasing its storage capacity.

The authors report that a California 10 year stream flow record showed the runoff increased 2.3 times as it became urbanized -- and it was an open non-forested watershed at the time. In Austin, Texas, runoff increased 1.9, 2.1 and 2.4 times, respectively, for watersheds with 21, 27 and 38% impervious cover. In New Jersey, prior to urbanization, evapotranspiration was 23" and runoff 24", and when half impervious with urban surfaces, these values were estimated to change to 11.5" with 35.5" running off.

Much of the same was found in the 1,526 acre oak forested Dilldown Watershed in Pennsylvania with a soil storage capacity of about 6". Precipitation was 58" and runoff

See URBAN on page 15

Mines Too Fast to Blast Need to stop victimizing homeowners

The West Virginia Legislature is considering a bill that would make it easier to for property owners to receive compensation for damage to their property, including water supplies, due to blasting.

While under current law anyone who is damaged by blasting has a right to be compensated, the current system for getting that compensation is inadequate. There is no easy and reliable method for determining whether damage to property and water supplies was caused by blasting. Given this lack of an easy reliable method of making this determination, the companies who typically blast typically will pay for damage only after protracted and expensive legal battles. The result is that many valid claims for damage due to blasting go uncompensated. This is particularly true of claims of those of modest means.

This difficulty arises from an inadequacy in current law. Current law allows blasting which causes a vibration of one inch per second at the nearest structure. Scientific research on blasting indicates that this level is inadequate to prevent damage. Thus, even when blasting is conducted at legal vibration levels, it is likely that damage will occur.

The current studies by nationally recognized experts on blasting indicate that a vibration limit of one half inch per second would be necessary to prevent damage. Even this limit may be inadequate since it does not take into account site specific conditions and the fact that different types of structures react differently to blasting vibration.

The proposed bill would address this problem by creating a rebuttable presumption that damage which occurred within 5,000 feet of a blasting site was caused by the blasting. The company which conducted the blasting would have the opportunity to show that the blasting was not the cause of the damage. If it

could not do so, then it would be required to pay for the damage.

The law, as proposed, would apply to all use of explosives. Although the mining industry is the largest user of explosives, the proposed law would apply to blasting for road construction, quarrying, or any other use of explosives as well.

The law already provides a similar solution to the problem of pollution to water supplies due to oil and gas drilling. Under current law, any pollution of a water supply within one thousand feet of a gas well is presumed to be a result of the oil or gas well. This law has been in effect for many years. The result has been that the oil and gas industry has developed a practice of making swift restitution for damage caused by its drilling without the necessity of lengthy litigation.

See BLAST on page 7

URBAN from page 14

36.6" with evapotranspiration considered to be roughly the difference 21.6". This annual evapotranspiration rate of 21.6" was reduced by 17, 38 and 59%, respectively, as 25, 50 and 75% impervious cover increased. The annual runoff increased then by 15, 26 and 41%, respectively.

The importance of evapotranspiration is shown in these figures; moreover 80% of the runoff occurred during the dormant season when the deciduous forest canopy was leafless and not functioning. In contrast when 75% impervious, and evapo-transpiration was less, more flow occurred in summer - and 62% of the runoff occurred in the dormant season. Urbanization means then that flooding can occur almost anytime (4) - in the summer as well.

In considering just the all important peak flows, the authors begin by saying, "Peak flows from undisturbed forest watersheds are minimized by high infiltration capacities and absence of overland flow. However, under wet conditions, high rates of runoff can be produced from subsurface flow." "Wet conditions" occur more often when leaves are off the trees and evapotranspiration is low. "Sub-surface flow" is, of course, finally delivered to tiny open channels, that perhaps only flow during wet periods, and collectively cause peak flows and floods. They next state, "that urbanization increases peak flows by 1.2 to 5 times" on small watersheds. "Suburban developments in Washington D.C. which increase the impervious area by (only) 12% can increase flood peaks by 1.8 times" -- almost double. In Mississippi, flood peaks on a totally settled basin were about 4.5 times those of a similar but "rural" stream. In California, urbanization increased flood peaks 1.6 to 2.3 times. In Texas and Michigan, flood peaks from urban watersheds were from 2 to 5 times greater than rural watersheds. Another study reported in N.J., Mich., Pa., and Va., peak runoff from developed areas were 3 to 4 times greater than similar natural (probably considerably forested) areas. In Weasel Brook in New Jersey over a 25 year period of urbanization, flow increased about 2 cubic feet per second per square mile of watershed, and the annual runoff 1 inch per year, year after year, for 15 years.

In a paragraph that begins "in sum", the report states "Greater evapotranspiration from the forested areas during the growing season and higher rates of infiltration permit greater

storage of summer rainfall and consequently less runoff," and under *conclusions*, "In terms of hydrological processes, urbanization of forested waterbeds would tend to reduce interception, infiltration, soil-moisture storage, and evapotranspiration, and to increase overland flow and runoff. Several studies of peak flows have shown that they may be increased by 1.2 to 5 times over peaks from rural conditions."

We may draw from this important U.S.F.S. paper an appreciation of the vital function of the Eastern Forest canopy with its evapotranspiration working to dry the soil there-by increasing its storage capacity. This is particularly true in the summer when the leaves are on, because this is when we get almost 3/4 of our great precipitation events.

Stream channels in forested watersheds can not be expected suddenly after deforestation to carry flows annually over twice as great (from 25" to 52") as they have in the last 80 years - without great destruction. The great summer floods could be increased 75%. The experts on global warming suggest now that this type of rain storm could be increasing (5). We may have seen this already. Surely urbanization is increasing, compounding flooding problems.

Protection of forest canopies is very important on watersheds with increasing compaction and urbanization (clearing, settlement and development) if stream channel integrity with its many values is to be retained.

This graph is from a recent publication - 1997.

See Graph on page 20

The author, L.A. Leopold, in "Water, Rivers & Creeks", in reference to this graph, states, "Speeding runoff increased the peak flow by a factor of two." In referring to other data he states, "From other storms and basins in the same area, computation shows that land surface altered by urbanization and exotic vegetation increased the peak flow by as much as 8 times."

Notes:

(1) Modern engineers know about this, and city construction codes and plans reflect post development flood prone conditions five times greater. This quote is from the April/May 1996 issue of Nonpoint Source News-Notes. "Flooding is another key stormwater management concern. About 500 percent more stormwater flows through developed watersheds than through undeveloped watersheds. This increased runoff causes streams to be bankfull four times a year on

average as opposed to the average predevelopment pattern of roughly once every two years. It can also widen streambanks two to four times more than their predevelopment width and straighten meanders that previously slowed flow and allowed pollutants to settle."

(2) The percent change in population in some West Virginia counties between 1970 and 1990 are roughly indicated.

Counties that increased in population by roughly 25%:

Berkeley	Hampshire	Jefferson
Morgan	Putnam	

Counties that increased in population in the range of 10 to 25%:

Barbour	Calhoun	Grant
Hardy	Jackson	Lincoln
Mineral	Monongalia	Monroe
Nicholas	Pendleton	Preston
Randolph	Upshur	Wayne
Wirt		

All counties not listed here increased in population less than 10%. McDowell lost 25% of its population.

(3) I have a note from elsewhere that 1 foot of dry soil can absorb from 2 to 5 inches of rain before a flow begins.

(4) Many details, including desynchronization of peaks are not considered here.

(5) Dr. Henry Kendall, Nobel Laureate in Physics at M.I.T., said global warming would cause "more precipitation, and more abrupt, sharp, precipitation. We are seeing that...we gave been having 100 year floods every few years."

□



Great Blue Heron.

Major Water Pollution from Old Underground Coal Mines Threatens Towns and Rivers in Northern West Virginia

Warning from a new report from the U.S. Office of Surface Mining

(From a News Article in the Gazette on January 25, 1998)

"Abandoned mine workings in northern West Virginia and southwestern Pennsylvania contain significant amounts of poor quality water," stated the annual report just issued by OSM's Charleston office. The report evaluates the performance of the state's Division of Environmental Protection.

In 1996, the U.S. Environmental Protection Agency ordered a coal company to stop an imminent "discharge of water with a high concentration of iron," the report revealed. The new report did not identify the company. OSM, DEP and EPA worked together in evaluating potential future damage from possible releases from the Fairmont Pool, a huge underground body of polluted water, from several mines, north and west of the city of Fairmont.

Consolidation Coal Co. is the largest coal company that has operated in the threatened area, from Marion and Monongalia counties in West Virginia up to Greene and Washington counties in Pennsylvania. The new report also reveals that there remain 10,259 acres of unreclaimed mining lands in the state, from 266 different mines that had their reclamation bonds forfeited after 1977.

West Virginia also has 2,790 additional unreclaimed sites abandoned before 1977, when Congress passed the Surface Mine Reclamation and Control Act. The DEP spends about \$15 million a year, using federal Abandoned Mine Lands funds, to reclaim these old mine sites.

In addition, acid mine drainage, which kills fish and all other aquatic life in streams, still pours off 450 old mines, primarily in the state's northern counties, which have more acidic coal seams and rock strata above coal seams.

The new OSM report reveals DEP still fails to collect enough money to reclaim all mines that are abandoned by coal operators who go bankrupt or simply disappear. The state's

current bonding system "will not generate sufficient revenue to cover the estimated cost of land reclamation of all sites that may be forfeited in the future," the report states.

In addition, DEP would need millions of additional dollars to treat water pollution from old mines. "OSM believes other states have similar inadequacies in their ability to treat or abate acid mine drainage on forfeiture sites," the report notes.

The report praises DEP for major improvements in its data collection and computer systems, which allow inspectors and the public to track the environmental compliance records of specific coal companies and of specific mining operations. West Virginia currently has nearly 3,200 mining permits. About 75 percent of them are active mines that require monthly inspections.

Underground mines produced 68 percent of all the coal mined in 1996. The rest was produced from surface operations, including several giant mountaintop-removal mines in southern West Virginia.

The new report is much shorter than many reports issued in past years, reflecting both improvements made by DEP in environmental enforcement and federal cutbacks in OSM's annual budget.

□

The West Virginia Land Trust

What is it?: The West Virginia Land trust, founded in 1995, is a non-profit conservation organization that offers an exciting new way to protect permanently the unique lands of West Virginia.

The Land Trust acquires land, or conservation easements on land, and preserves these properties in perpetuity.

Donating land or easements on land to the Land Trust can result in substantial tax benefits for landowners and their heirs.

The land Trust can protect urban green space, historic sites, scenic areas, agricultural land, wildlife habitat and wild places. Some areas will become nature preserves, where the public learns firsthand why unique landscapes matter.

How can you help?: Donate to the Trust to support our activities that protect West Virginia's unique wild and rural landscape and educate the public about land stewardship.

Website for Grassroots Coal Activists

A lot has happened in the West Virginia coalfields since *U.S. News & World Report's* "Shear Madness" in the Aug. 11, 1997 issue. As citizens of the coalfields begin to fight for better treatment from the mountaintop removal mines, *U.S. News* has added additional material about the problems for the communities to its Web site.

The site features stories of 18 communities affected by mines. It also has searchable databases of thousands of complaints and violations. The records can be searched by type of problem and name of mine. In addition, the site has information about proposed state legislation, some newly uncovered federal documents about mines and blasting, and numerous state inspection reports on mines.

The Web site is a developing project. People from their communities are invited to contribute their own writings about living in the coalfields.

Site can be reached from either <http://www.wvcoalfield.com> or <http://www.usnews.com/usnews/news/coalhigh.htm>

□



Tell us about unique lands in West Virginia that need protection.

Consider protecting your property by giving a conservation easement or land to the Trust for future generations to enjoy.

For more information: Write the West Virginia Land Trust, PO Box 734, Morgantown, WV 26507-0734, or call (304) 293-3721 Ext. 2446.

□

The Citizens Coal Council

The Citizen's Coal Council is a federation of grassroots groups located throughout Appalachia, the Midwest, the West and the Navajo Nation. CCC members are farmers, factory workers, ranchers, and homeowners - who share a commitment to protecting their environment while supporting each other's efforts.

Coal is still mined in 26 states and is the fuel for over 55% of the nation's electricity. CCC members are impacted during the entire process, from the moment the shovel hits the dirt and the smoke leaves the stack.

CCC members work to protect their homes, land and water from the impacts of coal mining and to enforce the federal coal law - the Surface Mining Control and Reclamation Act (SMCRA).

- We organize ourselves to build the power necessary to influence decisions impacting our lives.
- We train people, build leadership and provide the tools needed to tackle issues in coal mining communities.
- We educate ourselves about the best ways to win in the fight for coal field justice.

The Citizens Coal Council is the only national organization working solely on coal mining issues. CCC members get things done and make a difference. Working together, we have:

- Trained over 3000 leaders and built a movement of grassroots groups, activists and civic-minded people fighting for justice, law and order in the coal fields.
- Challenged poor mining practices by some of the world's largest multi-national energy corporations and forced them to improve conditions for our members and their environment.
- Stopped the anti-environmental politicians from weakening citizens' rights.
- Convinced the U S Government to launch a clean up program for over 12,000 miles of streams poisoned by acid pollution from old mine sites.
- Increased the funding to clean up abandoned mines and launched a collaborative effort with unions, civic groups, churches and environmentalists to clean up the coal fields

When we work together, we can protect our homes, land and water and restore law and order to the coal fields. We are far more powerful working together than acting alone. *In unity there is strength.*

Please join us! Citizens' Coal Council members have access to staff assistance and the backing of all CCC members and allies. You also receive CCC's popular magazine *The Reporter*.

Please mail your name and address with membership dues to: 110 Maryland Ave., NE, Room 408, Washington, DC 20002. Regular membership dues are \$25/year, but if you can afford to give more, please do so.. Student and low income memberships are only \$15/year. Contributions are tax deductible.

Member groups receive a *Monthly Update* of information useful to citizens of coal mining communities, and are eligible for a seat on CCC's governing board. Please write or call (202) 544-6210 for details.

□

ENVIRO ED from page 10

The rest of the survey shows an encouragingly strong concern and commitment to the environment, this is grounded in what we collectively know about the environment - the sound, good science of eco-education.

Of the 1,501 surveyed, 90% said they regularly engaged in at least 6 of 10 activities, like conserving energy and water, recycling, etc., to protect the environment. They found 60% donate to environmental groups, and 28% volunteer for environmental groups.

Correctly 73% marked, "habitat loss", as the main reason for species extinction. And 65% said environmental protection and economic development go hand in hand, and 69% favor environmental protection when there is a conflict. Only 17% said environmental regulation has gone too far. And 62% said air quality regulation hasn't gone far enough.

Showing their fairness, many (61%) thought landowners should be compensated if land use is restricted to protect endangered species or wetlands. These are not "extremists".

□

West Virginia Organizing Project

WVOP was started in 1991 by a group of people who wanted to change things in West Virginia by creating a way for ordinary people to have a voice in decisions that affect their lives.

Since then, WVOP has worked in communities in Logan, Mingo, Boone, McDowell and Raleigh counties.

WVOP is a member-controlled organization, run by and for its members. It is the members who select the issues WVOP works on and who make the decisions about the direction taken by community groups and the organization as a whole. Members address a variety of issues, including: roads, blasting, water and sewer, schools, government accountability, air and water pollution.

WVOP is a nonprofit organization funded through churches, foundations, and -- most importantly -- membership dues. As a member of WVOP ...

- You become part of an organization in which people are working together to solve problems that one person cannot solve alone.
- You have the opportunity to develop leadership skills through training, workshops, and direct action.
- You receive WVOP's Quarterly newsletter, *Mountain Monitor*.
- You benefit from the experiences of others who have faced similar problems and won.
- You have access to staff and members of other organizations who can offer guidance based on experience.
- You have a voice in the decisions made by WVOP.

How do I sign up? Dues are only \$12/year for individual and \$18/year for family. If you can give more, it would be greatly appreciated. If you cannot afford the basic membership dues, send whatever you can. No one will be turned away. Send name, address, phone and county to WVOP, PO Box 1921, Logan, WV 25601.

Our motto: *We're climbing toward change together!*

□

AIR POLLUTION *from page 3*

The problem with air pollution is that it doesn't honor state boundaries. What is emitted 200-400s of miles from here is affecting the air quality in West Virginia, just as the pollution from West Virginia is affecting other states to the Northeast. In fact, 80% of the nitrogen oxide emissions from power plants in the Eastern US/OTAG region are within 200 miles of a current nonattainment area. That's why we have to do something about transport and power plant emissions. I would be the first to admit that the Northeastern states have fallen behind in their commitments to clean up pollution close to home, and are overstating the transport issue. But they are not solely responsible for their problem either.

Moving to the new 8-hour ozone standard, we see that the Midwest and Southeast are just as impacted by air pollution as much of the Northeast. At the new 80ppb you can see that the Midwest and Ohio River Valley are experiencing much the same as areas in much of the Northeast.

And finally a few words on costs to control air pollution. EPA finally released its report to Congress on the costs and benefits of the Clean Air Act from 1970 to 1990. It found that the benefits outweighed the costs 42 to 1 in longer, healthier lives and cleaner ecosystems. Certainly the costs of meeting the new standards will be higher, but EPA's seasonal approach make the cost of achieving their proposed regional strategy very modest. The average cost impacts for combined NOx and SO2 controls needed to achieve the levels adequate to protect health and the environment, an approximately 75% reduction from expected 2000 levels, are in the range of 1-4 mills per kWh, which translates to \$1-4 per month for a typical residential customer.

EPA and industry have historically overestimated the costs of controlling pollution because it is hard to look into the crystal ball and estimate how technology innovations and market scales will change. During the debate over the 1990 Amendments to the Clean Air Act, utility executives claimed the cost to control SO2 would require credits to sell for \$1000-1500. But credits sell for about \$100 because innovations have made controls much cheaper. In 1991, Electric Power Research Institute suggested that the cost of installing NOx control would be \$125-140 per kilowatt on coal-fired cyclone boilers, but in 1994, Public Service of New Hampshire installed control at the cost of \$70 per kilowatt and is

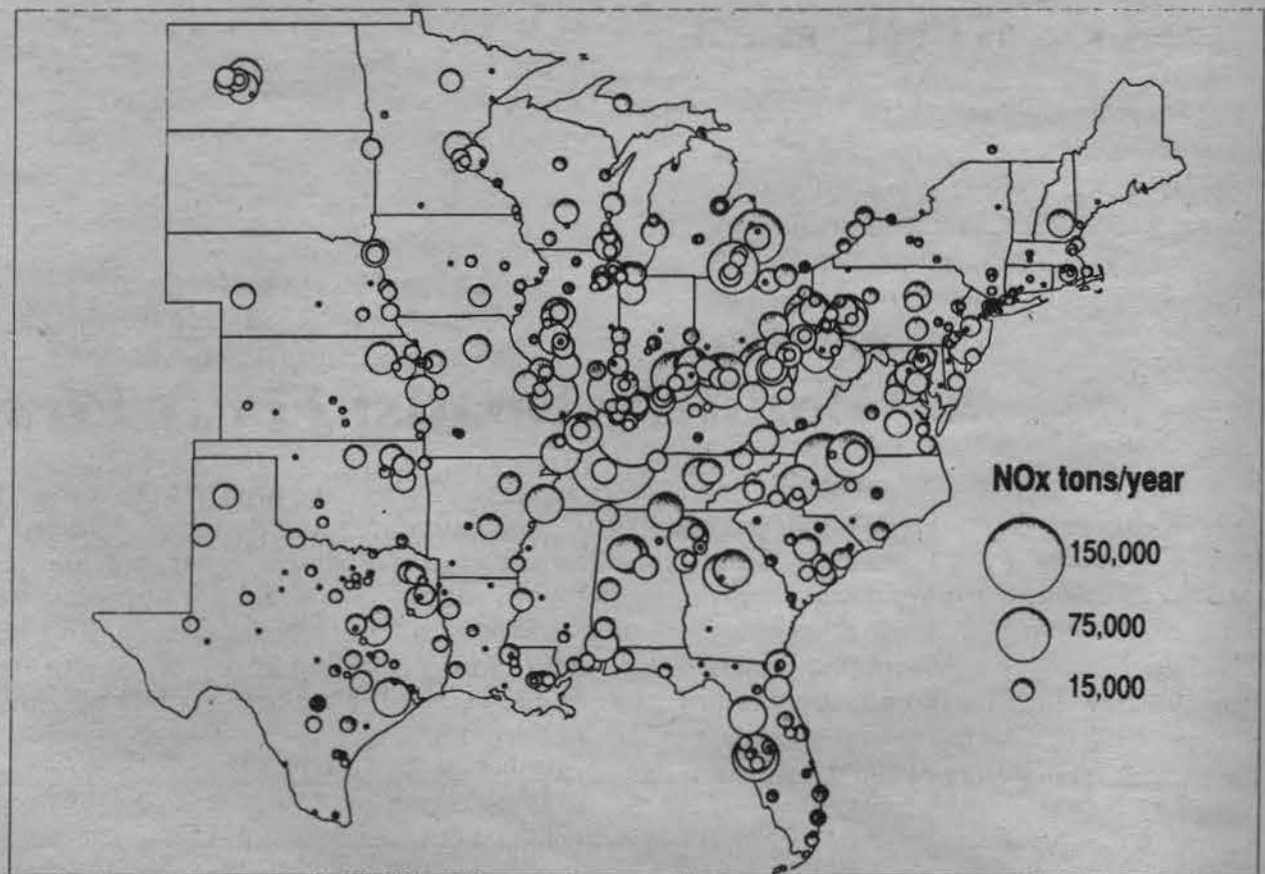


FIGURE 2. NO_x emissions from plants in eastern half of US

capable of removing over 90% of the nitrogen oxides from the flue gas. I believe that pollution control industries will rise to the challenge we have set before them and offer a range of cost-effective strategies again.

In conclusion, air pollution hurts us all. As we debate the facts and point fingers at each other, one thing is clear: the quality of the air we breathe affects our health and environment. And the longer we delay action, the longer we will have air that makes people sick and causes premature death, kills our trees and lakes, and stunts the views we see from these beautiful mountains all over the state. ■

[I have italicized certain critical passages of this address for the benefit of Governor Underwood, and the kingpins of the West Virginia Chamber of Commerce and the West Virginia Manufacturer's Association so that if they happen to be reading impaired, it will not be such a strain for them to get the gist of the speaker's message, ie. that defending the current level of particulate emissions is tantamount to dealing death and/or ill health to some of the people of West Virginia!]

And apparently these, our leaders, expect the citizens of West Virginia to orchestrate our own funerals. How? Why through our tax dollars, of course, in paying an expensive team of lawyers in an ill considered suit against Carol Browner and the EPA. How dare Browner and EPA consider the lives and health of us, the many citizens of West Virginia, ahead of short term profits for the relative few!! Ed.]

Send the name and address of a friend or friends who may be prospective members to Dave Saville at POB 569, Morgantown, WV 26507, or call him at 594-2276. He'll give them a 3-month trial subscription to the Highlands Voice.

Tree Hugger Fahions!

Forest Watch Coalition T-Shirt
100% cotton Beefy-T
Colors: white, ash(gray)
Sizes: L, XL
Cost: \$15 plus \$2 shipping.

Mail check to
Forest Watch Coalition
P. O. Box 2750, Elkins 26241



FOREST WATCH COALITION

Country Roads: *Fix It First*



As residents or travelers in West Virginia, we urge the Governor, the State Highway Department, our State Delegates and Senators, and our Representatives and Senators in Congress to pay the necessary workers and commit the necessary money to fix our roads! We want our potholes patched, our hazardous intersections, bridges and curves made safe, and passing and turning lanes and signals added. Do not waste money building super-expensive new roads, such as Corridor H, where there is not the traffic to justify them. Fix the roads we have and use everyday!

Name(s) _____ Date _____

Mailing Address _____ Phone _____

City _____ State _____ ZIP _____ E-mail: _____

Here's a WV road that really needs some work. Why not fix it first?

(Please take the opportunity below to tell us and the WV Division of Highways where your areas of greatest concern are. Feel free to draw a map, explain your suggestions or add extra pages if needed. Be specific, such as 'five miles east of _____')

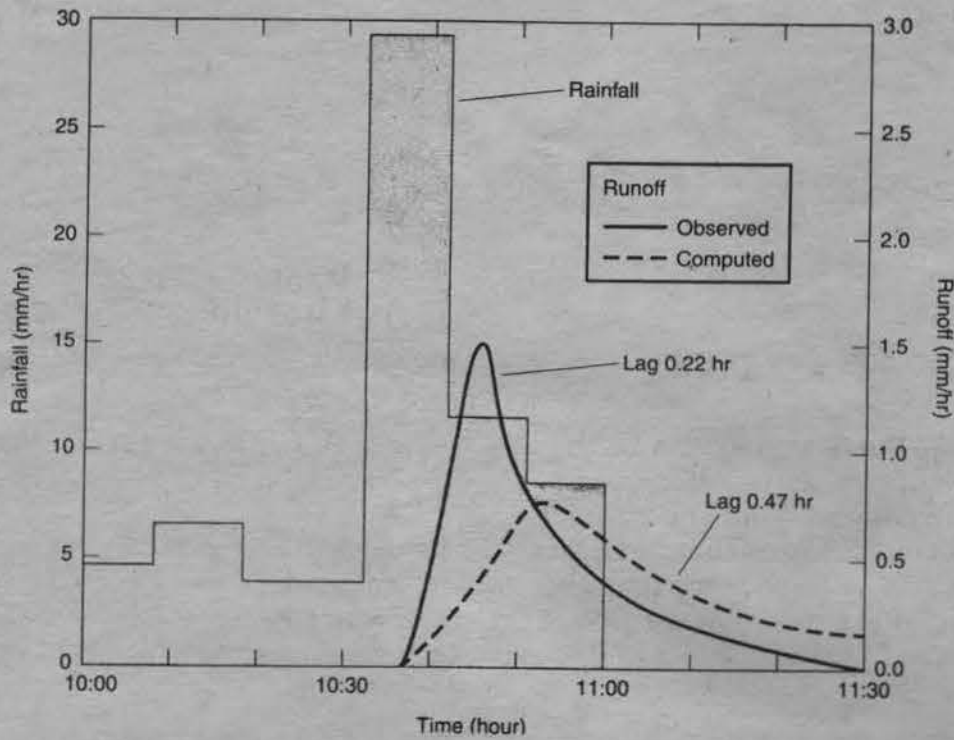
Road Name/Route # _____ Specific Location _____

Problem(s) _____

Suggestion(s)

Here's a recent West Virginia road improvement I appreciate. Thank you! *(Give route # or name, location and type of improvement)*

send to Corridor H Alternatives, P.O. Box 11, Kerens, WV 26276)



Measured rainfall and resulting runoff in a storm burst February 15, 1984, on Cerrito Creek, Berkeley, California. Shown in dashed line is the computed hydrograph representing the flow from the same storm when the basin was in natural condition before urbanization.



Lindy Point at Blackwater Canyon
(Note: Lindy Point is no longer accessible)
Photo courtesy West Virginia Department of Tourism

Graph on left referred to on page 15

What's Inside

Page 1 Fight for Blackwater Canyon
2 McFerrin column
3 Air pollution in the East
4 Editorial
5 Citizen's story
6 Forest canopy and flooding
7 Corridor H
Natural gas threat to Mon
8 WVHC appeal

Page 8 Valley fills
9 Catastrophic forest decline
Strip mine mitigation fee
10 Environmental opinion survey
11 Administrative Asst swansong
12 Gazette for Blackwater Canyon
Opinion survey - public land
14 Urbanization and flooding

Page 14 Blasting bill
16 Coal activist website
WV Land Trust
AMD threat
17 Citizens' Coal Council
WV Organizing Project
19 Fix roads form
20 Calendar

Calendar

March 14 - Legislative session ends.
- WVEC meets at CAG office.

March 27 and 28 - Lucy Braun Association annual meeting at the Memorial Student Center of Marshall University. On Friday topics include "Consequences and Policy Implications of Mountain Top Removal" with Ken Hechler as guest speaker, "Consequences and Implications of Clearcutting" and "Soil and Forest Condition Surveys." On Saturday the topic will be "Integrating across threats: Mining, clearcutting and pollutant deposition." Full fee including dinner, \$30. Both days without dinner, \$15. One day only \$7. For further information and registration materials, contact Allison Leavitt at the Department of Botany, Miami University, Oxford, OH 45056.

April 7 and 8 - Acid Mine Drainage

Symposium at the Ramada Inn in Morgantown. Cost is \$75 if registration is before March 15, otherwise \$100. Contact Jeff Skousen at 293-6256.

May 15 thru 17 - WVHC Spring Review at a location yet to be announced.

- also same dates as above, Citizen's Coal Council meets in Zanesville, OH. Contact person: Jason Tockman at (740)594-6400.

June 22 thru July 19 - Mon Trail Assessment Project, a cooperative project sponsored by the Mon Nat Forest and the Forest Watch Coalition. Call the FWC for info at 637-4082

June 26 thru 28 - The 2nd Ecological Integrity Conference will be held at Davis and Elkins College in Elkins. The theme, *Defining Problems and Solutions for Appalachian Restoration*. Keynote speakers will be Ori-

Loucks of Miami U. and John Cairns of VPI. Workshops will include Central Appalachian Forest Mortality, Soil Nutrient Losses and Forest Health, National Forest Management Issues, Urban Sprawl in Appalachia, Central Appalachian Reserve Design, Applying Geographic Information System Mapping to Conservation Problems, Conservation Easement Programs in Appalachia and Ecoforestry and Timber Certification Issues. Field Trips will be scheduled for Otter Creek Wilderness, Shaver's Fork and the Blackwater Canyon (within the Mon Forest). Contact Than Hitt at POB 5541, Athens OH 45701, (740) 592-3968, arc@frognet.net. This program is sponsored by Heartwood.

July 11 - WVHC Summer Board Meeting

October 9 thru 11 - WVHC Fall Review