



The Highlands Voice

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King Coal's Weakening Grip on Power – Part II

by Seth Dunn

The fuel that ushered in the Industrial Revolution still burns, but a new era beckons.

In Part I, Seth Dunn described some of the crises that are occurring in the world because of the long standing use of coal as an energy source, and of the attendant problems associated with the burning of coal – to health and the environment.

Exhibit C: Shifting Climate

The second generation of coal-related pollution laws, motivated by public concern over acid rain, led companies to install another technological quick-fix. This time "clean-coal" technologies were the promised solution, namely flue-gas desulfurization and nitrogen-control equipment. While the equipment lowered emissions of the targeted pollutants, they, like higher smokestacks, had unforeseen side effects. Clean coal creates added water demands, produces large amounts of sludge and other solid wastes, and decreases energy efficiency, thereby increasing emissions of other compounds – including carbon dioxide (CO₂),

The thickening blanket of [CO₂]... and other greenhouse gases has already trapped enough radiative heat to make the planet's surface its warmest in 1,200 years.

Ranging from less than 20 to more than 98 percent in carbon content, coal is the most carbon-rich fossil fuel. The industrial era's heavy combustion of these fuels is short-circuiting the global carbon cycle, building up atmospheric CO₂ concentrations to their highest point in 420,000 years. The thickening blanket of these and other greenhouse gases has already trapped enough radiative heat to make the planet's surface its warmest in 1,200 years.

Many expected climatic dislocations are appearing: sea level rise; accelerating glacier retreat and ice shelf breakup; migrations and declines of forests, coral reefs, and other temperature-sensitive species; changes in the timing and duration of seasons; greater frequency

Climate scenarios for the year 2050 from the Hadley Centre for Climate Prediction and Research show tropical forests turning to desert, adding more carbon to the atmosphere; malaria spreading to currently unaffected populations; an additional 30 million people at risk of hunger; another 66 million in danger of water stress; and 20 million more susceptible to flooding.

and intensity of extreme weather events. Climate scenarios for the year 2050 from the Hadley Centre for Climate Prediction and Research show tropical forests turning to desert, adding more carbon to the atmosphere; malaria spreading to currently unaffected populations; an additional 30 million people at risk of hunger; another 66 million in danger of water stress; and 20 million more susceptible to flooding. Heat stress will have increased by 70 to 100 percent by then – adding several thousand deaths each year in large urban areas like New York, New Delhi, and Shanghai, according to Laurence Kalkstein of the University of Delaware.

Carbon emissions are not the only means by which coal changes climate: mining annually releases 25 million tons of methane, equal in warming potential to the United Kingdom's entire carbon output. But CO₂ is the most important contributor to climate change – and coal releases 29 percent more carbon per unit of energy than oil, and 80 percent more than natural gas. The climatic impact of coal burning is disproportionate to its importance as an energy source: with a 26 percent share of world energy, it accounts for 43 percent of annual global carbon emissions – approximately 2.7 billion tons. Climate instability also

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What's in a name?

The Unified National Strategy for Animal Feeding Operations

By Dr. Margaret Janes

Last year, when President Clinton revealed his Clean Water Action Plan, and early this year when Vice President Gore unveiled the new federal US Department of Agriculture (USDS)/US Environmental Protection Agency (EPA) strategy for animal feeding operations, environmentalists across the country were hopeful.

Hopeful that a few tentative first steps would be taken to control pollution from factory farms. Hopeful that *Pfeisteria* in the Chesapeake Bay, hydrogen sulfide emissions from hog lagoons, and dangerous bacteria in our rivers and streams would be addressed. Hopeful that the largest source of uncontrolled water pollution in the United States would finally have some regulatory oversight.

In West Virginia, we were hopeful that strong national standards would provide guidance to our lackluster state Division of Environmental Protection (DEP). We were hopeful that federal guidance would give DEP the political backbone to stand up to agricultural bad actors and provide regulatory oversight to the very largest poultry and hog facilities.

But now that hope has turned to disappointment and anger. From the beginning, the partnership between the USDA and the EPA was troublesome. USDA is a well-funded, politically powerful agency and a friend of corporate agriculture with no taste for regulations. EPA is unpopular, and has a small budget and fewer friends in Congress.

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From the Western Slope of the Mountains

By Frank Young

On A Roll

My eleven years or so as a Conservancy member have seen a few up and downs for the organization. Some years we've had membership increases; some years we had declines. Some years we've had lean budgets; other years we had a little more. Some years we are active on many issues; some years we work less, coast more and mostly just have fun.

The past year has seen more change in membership, finances and activism than all my previous eleven years. And guess what? The changes have been for the better! Membership is up -- substantially. Membership dues, special project contributions and other income items are up -- again, substantially. Our activism, issue by issue is increasing.

We now have access to Blackwater Canyon for endangered species investigation -- under court oversight. Federal and state agencies are scrambling to try to see that they aren't sued over degradation of waters. Corridor H planners are still on the ropes, after 30 years. And, of course, the whole world knows that surface coal mining policies and practices have been stood on their pointed heads.

In short, we are on a roll.

How has this change in activism, membership and finances come about, in seemingly so short an order? It comes about because our members have decided that they do care about the land, and about the people and other creatures that live on the land.

Sometimes we respond strongest when we are challenged strongest. On Blackwater Canyon, for example, we sat more or less at idle for decades. Then we saw the Canyon come into the hands of a company that demonstrated active intent on spoiling this resource for all to achieve a temporary, private gain. We sprung into strong, effective action. The campaign to save the Canyon generated members, and financial support for the project.

On mountaintop removal mining (MTR), our years of patience spent cajoling and begging regulators for effective protection ran out. Our lawsuit demanding that the laws be enforced has had more impact than many would have ever thought possible. Again, we acted when we were challenged: a 3100 acre "routine" surface mining permit application, the biggest ever, stretched our patience beyond the breaking point. We sued for proper permit writing, and for enforcement. The shock waves are still reverberating in the coal industry and in legal and

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Public Asked to Help Buy Blackwater Canyon

By the West Virginia Highlands Conservancy Blackwater Canyon Committee

As we write this, representatives from the West Virginia Highlands Conservancy (WVHC) and other state and regional conservation groups are meeting with national environmental groups in Washington, DC. They are discussing strategies for moving ahead with the establishment of the Blackwater Canyon National Park. Other meetings for the day in Washington include visits with officials from the Department of Interior, Senator Rockefeller, and aides for Senator Byrd.

These national conservation contacts, plus the in-state supporters (over 20,000 have signed the "Save Blackwater Canyon" petition), add up to overwhelming, positive support for the protection of Blackwater Canyon. The public is primed! Statements about the value of the Canyon abound:

The West Virginia Supreme Court justices said, "If the natural integrity of the Blackwater River Canyon is destroyed, it will be a tragedy for the people of West Virginia." The Director of the State Park Systems, Cordie Hudkins, said that development within the Canyon would have a devastating effect on Blackwater Falls State Park.

Recently, the Clarksburg Exponent editorialized: "The Blackwater Canyon is one of nature's wonders. It's a trademark of the state's beauty and a key part of the tourism industry in Tucker County. The value of saving a natural wonder is priceless to our children and our children's children."

But, government agencies make no moves toward saving the entire Canyon. What to do?

BUY IT BACK!

Under the leadership of two volunteers, Ann Murray and Sandra Fallon, the WVHC has launched the "BUY IT BACK: BLACKWATER CANYON" campaign. The aim of the campaign is to raise money to literally buy back one of West

Virginia's most important natural heritage sites and to jump-start the federal process for creating the Blackwater Canyon National Park.

With a goal of raising \$3,000,000, WVHC volunteers will contact school groups and youth organizations, sports clubs, churches, civic groups, and business owners all across the state. We will ask them join the effort by sending in bucks for Blackwater, coins for the Canyon, or pennies for its protection. Yup, every penny counts!

It's a tall goal, but we can settle for nothing less than full protection of the entire Canyon. Because of the continuous support the public has so far given our Canyon protection efforts, we are confident we can reach our goal.

Thousands of people have asked how they can help protect the Canyon and now we have a very simple task for them -- help us Buy it Back!

It's important to act now to buy Blackwater Canyon. For two years, a conservation organization had worked toward purchasing the Canyon. In 1997, without warning, Allegheny Power Systems struck the deal that sold almost 3,000 acres of the Canyon to the Allegheny Wood Products logging company. The company has already timbered over half of the land. Timbering and road construction have already scarred and eroded the Canyon. Unchecked sediment from the steep Canyon walls has begun to runoff into the Blackwater River, threatening its trout population. Timbering has also damaged the already fragile habitat of several threatened and endangered species that make the Canyon their home. The Canyon's spectacular scenic views are at risk and public access to recreation there is restricted. Every day the Canyon is not in public hands, West Virginia's tourism economy suffers.

John Crites, owner of Allegheny Wood

Products, took a big risk in purchasing the Canyon. He must have known the value of the Canyon, both to the State's public relations/tourism efforts and to private citizens who have visited there from far and wide. He has sought waste water permits for tightly-packed condominium developments on the Canyon's rim. Although architectural plans exist for the condominiums, Crites said he won't build the development. He has publicly admitted that his development plans were made to increase the Canyon's value. If the development did move forward, the purchase price for the Canyon could skyrocket.

Development or not, Crites appears to be green-mailing the public. Governor Underwood has condoned the green-mailing by offering to pay \$50,000 per acre for 5 acres of the Canyon.

("Green-mailing" refers to a practice, more common out west, where land known to have outstanding natural or historic values is grabbed up by developers before it can be inventoried and protected for the public. Often developers grab inholdings in public lands and threaten to develop them. When the public demands that the special land be saved, the developers ask exorbitantly inflated prices.)

This is part of the reason the Conservancy targets raising \$3,000,000 to buy the Canyon from Crites. We want to stop the green-mail! In addition, the Conservancy's Blackwater Canyon Committee believes Crites has recouped much of his expenses in purchasing the Canyon by selling trees and more trees.

Furthermore, Crites has caused degradation of the Canyon due to logging activities. He has harmed endangered species habitat. The controversy surrounding his actions in the Canyon has no doubt created negative effects on the West Virginia tourism industry.

How does one put a price tag on those kinds of losses -- the pilfering of beloved and irreplaceable resources in the public's treasury? Who pays for those damages? Crites should not be rewarded for his actions by asking for and receiving an exorbitant price for the Canyon. Nor should anyone else be rewarded who might, in the future, seek to cash in on natural areas in the state that are truly outstanding treasures worthy of protection rather than exploitation.

We want our natural heritage back!

Please help in the Buy it Back campaign by donating time, ideas, or money. Concerned citizens are encouraged to get the word out, organize local awareness-raising and fund-raising events, write letters to the editor and to write to state and federal officials.

For more information on the "Buy it Back" campaign contact West Virginia Highlands Conservancy at P.O. Box 306, Charleston, WV 25321. Or call Judy Rodd at 304-265-0018, or visit www.wvhighlands.org.



Blackwater Canyon from Lindy Point
Photo: Rick Landenberger

In lieu of editorial

Spreading the Environmental Message

Recent Speech Given by Elisabeth Hoffman at a Toastmasters Gathering in Florida.

Some say the world will end in fire, some say in ice
A third scenario concerns me. Some say with world will end in a sandy wasteland.

Terminator technology has hit our food production. Crops and cattle.

Clearcutting our forests for development or newsprint destroys habitat for many species. It also creates flood conditions.

I am afraid that corporate greed and lack of long range planning will destroy the global supply of food, protective shade of tree canopy and herbal healing plants.

And us.

Civilization as we know and love to talk about it.

I have come to care about each of you so it is important to me to share my deep concern with you.

Our fields are not healthy places. Our meat sources are tainted.

Our open space is compromised.

Europeans are wisely avoiding engineered beef and plant materials - but are being pressured to fold.

Americans, meantime, are blindly raising, planting and eating food that can not only spell personal health disaster but also create global tragedy.

Maybe most of you have not even noted the many small articles in news and naturalist magazines for several years, or interviews on NPR, but evidence emerges that we are in imminent danger.

This is a three edged sword of Damocles. The giant Monsanto seeks to control seed stock of corn, rice and soy and has created crops which cannot reseed for a second or continued crop. Fresh seed must be bought for each planting. This is especially dire for remote and small farmers who have no cash, and are accustomed to save seed each year -- in effect breeding what works best for their climate and land.

Corn is especially a problem. I grew up in farm country -- in NJ where small farms are adjacent. Corn pollenizes over a large area -- pollen from corn blows in a cloud over territory far beyond land boundaries. When first hybrids -- a shorter stalk -- were introduced, neighbors were furious when their crops also produced shorter stalks.

This new genetic trait means that farmers who conservatively choose to avoid purchase and planting of treated corn may nevertheless have their crops destroyed by being contaminated with pollen from Killer

corn -- which means that they will have to buy new seed the next year. In Iowa, where corn is livelihood, problems have already arisen.

Another potential disaster is for (you) carnivores.

Beef cattle are beginning to succumb to the diseases feed-based antibiotics now barely control. We have come to rely on only one dominant species, a wholesale herd. And we are killing them with medical kindness. Widespread death and disease or genetic mutation meaning calves will not survive to breeding maturity is the likely next step.

We currently graze cattle for human beef consumption on acres which could produce sustainable agriculture of varied crops with minimal pesticide and fertilizer. They don't get enough to eat grazing so we supplement with sawdust mixed with antibiotics which fills their stomachs but shouldn't fill ours.

We deplete topsoil over expansive areas for machine farmed corn and wheat which could be grown to better, safer advantage on small farms where hedgerows would encourage birds and snakes to feed on insects and rats.

We are in too big a hurry for crop rotation which would create natural fertilization.

We destroy old growth forests which have special characteristics of microbial interdependence about which we know little except that that very interdependence is a sign of healthy response to earth's climate and fertility variations.

In our urge to control, in the name of progress, we may eliminate the chance to learn from an ancient pattern of success.

I earnestly implore you to take notice, perhaps to make small changes in your own lives to help avoid this dual potential catastrophe.

- ✿ Don't buy Roundup.
- ✿ Buy bird safe coffee, raised on small plantations where shade canopy for bird life is left in place -these beans taste richer and are chemical free.
- ✿ Eat low on the food chain and pay attention to how the vegetables you eat were raised. My oldest daughter and her husband live and work on an organic farm - they are so healthy and energetic it is scary!
- ✿ Please: Wash your fruits and vegetables in vinegar water and scrub vigorously. If you don't buy organic peaches, peel them.
- ✿ Grow some of your food in pots at home.
- ✿ Use your food scraps to create a natural fertilizer through composting.
- ✿ Plant a tree and think of all it does for you.

Elisabeth Hoffman, perhaps better know to some of you as "Betsy," is a WVHC member and is employed by the Nature Conservancy as a Community Relations Specialist.

Editor's Note: As we go to press (Oct 5) a bulletin has just come through that Monsanto has decide to scrap Terminator Technology. Further details are not known at this time.



"The idea of absolute freedom is fiction. It is based on the idea of an independent self. But in fact, there's no such thing. There's no self without other people. There's no self without sunlight. There's no self without dew. And water. And bees to pollinate the food we eat -- So the idea of behaving in a way that doesn't acknowledge those reciprocal relationships is not really freedom, it's indulgence."

-- Peter Coyote in New Age (July/Aug. 98)



HOLY EARTH!

By Michael Hasty

Six Billion and Counting

By whatever arcane calculation they use to measure these things, population experts have figured that this month—on the 12th, to be exact—the world's population will reach 6 billion people. This should be a concern to anyone who cares about the environment.

It's hard to imagine what environmental problem an exponentially growing global population does not exacerbate. Whether you're talking air, water, soil, plants or animals—all have been adversely affected by the uncontrolled spread of humans set on exercising "dominion" over the rest of Nature.

It wouldn't be so bad if we humans were living a lifestyle more in tune with our environment. Some people think that the planet could sustainably support an even greater human population. (We'd better hope so, since that's the way the trend is going.) But when you combine the number of people with an economic system that is exploitative in its very nature, a political system that rewards the most rapacious, and a belief system that separates creator from creation, you have a recipe for disaster.

A look at a population graph gives an astounding picture of just how dramatic the change has been. From the beginning of humanity until about 1850, when the world population reached 1 billion, there is a horizontal line barely creeping upward. Then in the last 150 years, the line shoots straight up. It looks like someone knocked over a letter L.

Fortunately, the rate of population growth seems to be slowing down a bit from the explosive pattern of the last half-century. But the world is still expected to add about a billion people every 12 years until at least the middle of the next century. For those of us who are half a century old, that doesn't seem that far away. You have to ask: where are we going to put all those people? And how are they going to live?

What are they going to eat? And drink? Most of the world's ocean fisheries are already depleted. And the Green Revolution in agriculture has reached a plateau. Grain production worldwide has been dropping, along with water tables on every continent. The irrigation systems that have been the backbone of the Green Revolution are removing water from underground aquifers

all over the world at a faster rate than nature is replenishing it. Clean water is becoming more and more scarce.

Global climate change isn't helping the situation. Despite the intense rainfalls that with increasing frequency are causing problems in specific regions, much of the world (and most of the United States) is suffering drought or near-drought conditions. And greenhouse gases are building up, as developing countries try to emulate the lifestyle of the industrialized world.

This brings up one of the major dilemmas of the population problem. There is a direct correlation between poverty and population. In developed countries like the US and Western Europe, population growth is slowing, and even reversing in some cases. An affluent industrialized society, with the capital and technology to create excess wealth (and to equip a military force sufficient to protect its less-than-fair share of the market), doesn't need to reproduce the workforce required by the labor-intensive subsistence farming practiced in most of the world.

On the other hand, the industrial world, in order to create this wealth, produces most of the toxins that are poisoning the planet. For a notorious example, the US, with 6 percent of the world's population (third largest in the world), emits 24 percent of greenhouse gases. As developing countries like China and India (populationwise, numbers 1 and 2 respectively—although India, whose population just went over a billion last month, is projected to surpass China by the middle of next century) attempt to advance their own development by mimicking the western economic model, they will produce a greater share of global pollution. Based on what we've seen so far, pollution goes up as population growth rates go down. Catch-22.

But here's another paradox. Affluent countries, with their cushion of wealth, can afford to implement environmental regulations to control their pollution. (Whether they do or not, or how strictly they enforce these regulations, is a question we're all too familiar with.) Countries whose people are just this side of starvation often don't have that luxury. So even though China, with a population quadruple that of the United States, produces only about half the greenhouse gases we do, Chinese cities have

some of the dirtiest air in the world—mostly from burning coal.

Of course, the choice between economic growth and a clean environment is a false one—as the Chinese are discovering. The health and environmental costs of their "cheap energy" policies outweigh any economic advantage gained by ignoring the consequences of pollution. But like poor countries and poor people everywhere, they are caged in by a global market system whose dominant players have reached their current position by leaving the environmental costs out of their economic calculations, and now want to change the rules of the game. Is it any wonder that developing countries, which are often former colonies of the economic giants, feel cheated?

We can see a similar dynamic at work in high-poverty areas of wealthy countries, like here in West Virginia, where many people (though not a majority, according to polls) are willing to sacrifice environmental quality for the sake of jobs and economic growth. But here again, people are being presented with a false choice of limited options—limited to protect the political and economic power of entrenched interests, limited by an accounting scheme that leaves public health and environmental costs out of the equation, and limited by an absence of vision.

Yet even West Virginia is rich compared to most of the developing world, where too often the choice is not environment or economy, but environment or survival. One of the more serious results of forcing people into this choice has been widespread deforestation. Although industrialized nations are the world's major consumers of commercial wood products, for nearly half the world's population, wood is the primary energy source for heating and cooking. 80 percent of the wood harvested in developing countries is used for fuel. And for many of the world's poorest people, "slash and burn" agriculture is the only way they know how to survive.

Worldwide, 600,000 square miles of forest have been cut down in the last ten years. In a period when the atmosphere is being choked with carbon dioxide, we're losing trees when we most need them.

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Lodging a Good Poem

The Blackwater Canyon National Park

By Jack Slocomb

I think I first saw the Blackwater Canyon and Falls when I was about 8 or 9 years old. I was living in Buckhannon then, and my family and a small herd of their bridge club-friends decided serendipitously to drive up to Blackwater Falls for Sunday lunch. Church was left in the dust. This happened quite a bit with these folks. Always a whim that would result in a caravan headed off to God-only-knows-where. People used to do things like that in those days.

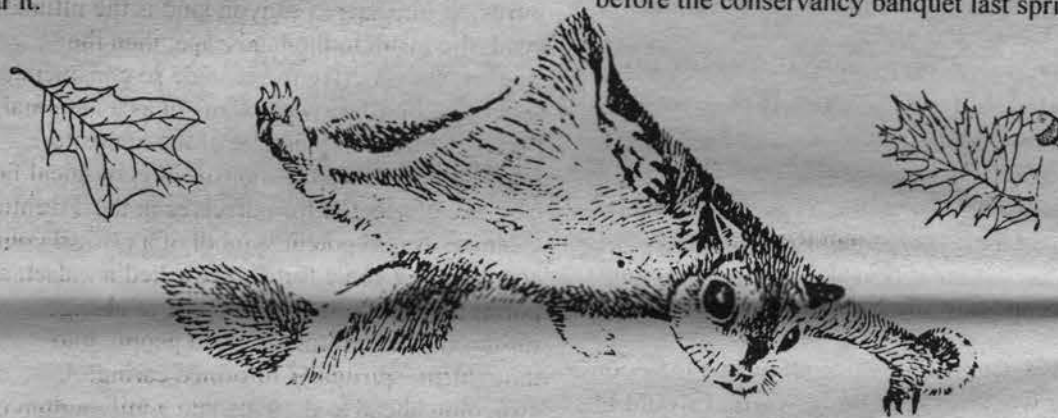
I remember this trip mostly in images and sensations. Dining at the lodge at a big round table with a scenic view of the canyon. Something that was very tasty that seemed to go with the view. Like I was ingesting the scenery. I may have been a little sleepy, I don't know. But ever since then there is always a fleeting hint of that tempting flavor on my lips when I am roaming around the canyon. Funny, I think maybe it was fried chicken or french fries.

Anyway, after walking back up from the falls, I have a consciousness of people straggling a few at a time out onto a rock somewhere which seemed to project itself over the chasm. My father held my hand, I believe. My gestalt of that moment is of a late spring day and everywhere the canyon is clean swept clear and the plunging timbered slopes and brindled gray rock faces seem almost lucent, ready to jump out at me. In the far distance, specks of turkey vultures heave and ride up on swells of wind which seem to billow from the guts of the canyon. And a pervasive, ineffable silence over everything. An inviting and unsearchable emptiness which envelops even the hissing river below.

In another place, on a June morning about four decades ago the legendary walker, Colin Fletcher, stood on the lip of the Grand Canyon many months before he decided to take his first cautious step down into his solo "walk through time". He wrote later of this split second of first encounter that he "...heard the silence; felt it like something solid, face to face.* A silence in which the squawk of a Blue Jay was sacrilege. A silence so profound that the whole colossal chaos of rock and space and color seemed to have sunk beneath it and to lie there cut off, timeless." I think that it was the same thing for him as it was for me at the Blackwater on that day when I was nine years old. A geography you settle down into, almost without realizing it, which after a while becomes a permanent expansion of your boundaries.

This silence was Fletcher's most loyal companion throughout his whole journey along the mid-escarpment of the canyon, from one end to the other. I doubt that I will ever match Colin Fletcher's feat. But I did walk the old road through the Black Water Gorge for the first time last May during the Conservancy's Spring Review with a bunch of other travelers and a very well-informed leader (I wish I could remember his name now.) I took in the easy going observations

he made along the way about the geology, biota, and cultural history (the beehive of coke ovens, especially fascinating), like a hungry, hibernation starved bear. We passed by Pendleton Creek and other cascades tumbling end over end from the upper layers of the canyon. We lazed around by one of the falls and gorged on the lunch prepared by Sirianni's. We had juicy, irreverent West Virginia trail conversations, and I had a very searching parley with a young woman from Washington, D.C., a computer programmer, who was seriously writing nature literature, bringing a balance to her information age career. I learned about limestone slickensides. And, of course, there was the ever present background rush of the Blackwater through the woods, which every now and then came into view when the trail sidled up near it.



A real decent kind of happiness, as poet Robert Creeley would say.

I have poked around the canyon backpacking and skiing and hurrying down for a look at the falls for more years than I care to admit. But I had never hiked through the canyon. This was a first, and it completed a larger picture of the canyon's environs for me. I plan to repeat the trip quite soon.

Now although I am pretty sure that I will always fall far short of achieving the off the charts high of Fletcher's Grand Canyon penetration, I think, as I have suggested, that I can pretty nearly match his experience when it comes to rim gazing around the Blackwater. You name it. Lindy Point, the lawn in back of the Lodge, and any number of jutting overhangs around the perimeter of the canyon where you can work your way out to. Places where I have plopped down my buttocks for a discourse with the SILENCE.

Now here is one way I have found that I can really get the canyon into my system: I pick a crag with a hearty outlook. I stroll out there very early in the morning or late in the evening to avoid too many gawkers and lens clickers and anyone else who might think that I've done gone roun' the bend. I bring along my Taos leather drum. I carry it carefully and very respectfully. I find a place on the rocks where it looks like I can root myself and then settle myself down. I light my smudge stick

and wave the smoke over my body and over the drum. I begin with the Heart Beat. daDah... daDah...daDah... daDah. Subdued and steady and slow and always in time. I send it out into the gape and space below me where the river threads its way along like a thin dark vein. I keep the beat. I get louder, and the echo of the drum resonates everywhere until it is the very heartbeat of the canyon that I hear. Nothing else. I and the canyon and the drum are of one throb, one rise and fall.

Then I am in motion. I am lifting. Floating over the deep fissure, staring down into its beckoning deeps. I shift in an instant to the Eagle Beat. DahDahDahDahDahDahDahDah! in rapid staccato. I am spiraling into the center of 4-5 million years of history.....

Now segue to the lodge a few minutes before the conservancy banquet last spring. On the

back lawn chatting with some folks while we are taking in the canyon from the corners of our eyes. Beyond us, above the clearing, vortices of insects hover, probably Midges, pulsing in the glint of the sunset, and get sliced clean though every now and then by squadrons of swallows. The shimmering bugs seem to be rising on drafts right out of the abyssal yawn of the darkening canyon.

This whole place is just ripe with eternal, untethered longings.

Blackwater Canyon is a thing midway in the cosmos. At least on a par with, or perhaps a bit more heady than other eastern cuts like, say, the Cheat River Canyon, the New River Gorge, Pine River Canyon, and Ausable Chasm. It is not Yosemite, the aforementioned Grand Canyon, or the Quadisha Gorge in Lebanon. But what makes the Blackwater Canyon unique, I have always thought, is an indefinable quality, which at the same time, defines it. And that is that it is a domain of upwelling. There are certain terrains which seem to emanate this rush of spirit and energy from the core. Historically, people have always recognized these special provinces of animate contact. And the Blackwater Canyon is one of them, I believe. It is a palpable feeling. The Blackwater is a balance point on the earth, an Axis Mundi, around which we somehow must keep whirling to know that we are alive.

SLOCOMB concl. on next page

SLOCOMB from preceding page concl.

It is a vital organ.

But taking flight like this in a region of such overwhelming grace will soon become a difficult, if not an impossible, thing to pull off when half or more of the timber is gone and then very possibly is replaced by an upper class shantytown of condominiums on the 3000 acre South Rim. An intrusion, which to me, and obviously to most other Conservancy members, that will more or less blast away, like a well aimed mortar, the whole central aesthetic spine of the canyon, and most likely some more of the vestiges of rare and endangered species along with it. This is not just purist whining - a moldering archdruid trying to hold onto some fragile and furtive innocence of the past. Not when it comes to the Blackwater Canyon. I'm way beyond that stuff. This is dread. It's about losing stone and substance, a hunk of the blood and bone of what makes life worth the living of it in West Virginia. And if this maiming is allowed to occur, others like it are will surely follow. It will only be a matter of time.

Which now gets me to the Conservancy's grand dream of a Blackwater Canyon National Park.

It would be difficult here for me to add anything substantial to the factual case which has already been stunningly presented in the Voice. The article in the August edition [see The Highlands Voice, August 1999] by Jason Halbert of Heartwood's Appalachian Restoration Campaign about what is at stake in terms of land use values and how the National Park could be configured was especially convincing and informative. But if I might be allowed a little copy space, for whatever it might be worth, I would like to throw in my two cents on what seems to me may be the currents of some broader meanings which run through this effort.

In addition to the outstanding recreational, economic, and biospheric benefits which would most certainly accrue as a result of establishing a national park, I think that there is a more encompassing intangible framework which contains all of this - and is perhaps the unconscious drive which keeps so many people going full tilt on this project: It is a mythic thing.

One of the functions of myth is to keep us grounded, in check, to remind us not to take the gifts of the planet for granted. Because it seems that the human brain, after the invention of tool use, has taken on some real runaway habits, causing all sorts trouble. Without a publicly declared reverence for places like the Blackwater, without leaping into their deep mythic spaces, we seem to become Sorcerer's Apprentices, really letting things go amok in short order.

To wit, the Alleghenies, and West Virginia in particular, is a region with an incomparable biotic and geological booty, which has been essentially up for grabs for the last 100 years or so. And despite the loud clamoring of timber and coal interests to the contrary, the visual, cultural, medical, and ecological evidence of damage keeps on slowly piling up -- ridge by ridge, stream by stream, valley by valley, until what we may finally be left with is -- in Thomas Wolfe's words -- "a weary unbright cinder". A

squalor of soil erosion, fouled streams, and dual lane highways that might as well have been built on the moon.

Everything that is not under State Park protection or the Wilderness and Wild and Scenic Rivers Act's lock and key is vulnerable to dismantling. And even then, as we have painfully seen in the case of Blackwater Falls State Park, there is no security for adjacent territory, no safe "buffer zones." And maybe the acceptable tolerance levels for environmental impact have been ratcheted down a few notches due to laws and regulations, but nonetheless the work of subjugation goes on. It will just take a bit longer, that's all. But then who cares, anyway, if it gives some folks some more time to buy that new truck or satellite dish. Forget the future generations. Who gives a hoot about them anyway?

Given this baleful history then, to me, the initiative to create a Blackwater Canyon National Park, spearheaded by the Conservancy, is one the boldest efforts yet to bring about some kind of balance to wholesale plundering of the Alleghenies.

For if Allegheny Wood Products' intrusion into sacred canyon land is the ultimate symbolic insult to the landscape, then the Conservancy's drive to set aside so conspicuous a region as the Blackwater Canyon as a National Park is equally emblematic of the opposite impulse -- to usurp the monstrous ecological fate we have concocted for ourselves in the Twentieth Century. A real potent symbol of a critical course correction, a tonic for a sidetracked mindset, a portal to a new time, a challenge to change ruthless disregard for land and people into thoughtful, spiritually informed caring. A sweeping ahead to draw us into a millennium of economic and cultural sustainability. Creating a Blackwater Canyon National Park is an act of placing us out in front of that curve.

We need beacons. And what better place in the country than in West Virginia where the opposite poles of profiteering individualism and community bond with the meaning of geography and place are so starkly contrasted. That's why it's so important to go on with a big head of steam toward this vision. So we can assure the ongoing mythos of this canyon, this domain, this work of art and water and wind, this testing place of raw, unbridled wills, this dialogue with forever. The ripple effect could be enormous.

And this brings me finally to a coda. Specifically, to Robert Frost. In a lecture once he wryly observed that, "The utmost of ambition is to lodge a few poems where they will be hard to get rid of."

Bringing into being a Blackwater Canyon National Park would be just like that, I think -- lodging a good poem.

And it will be damned hard to get rid of.

* Read all about it in *The Man Who Walked Through Time* by Colin Fletcher. Alfred A. Knopf. New York. 1968

Jack Slocumb is an avid hiker and nature nut who practices family therapy in Maryland. ✦

YOUNG from page 2 concl.

regulatory circles. This campaign, too, generated members and financial support.

It will take years to adjudicate and find equitable resolution of the issues we have taken on. In the meantime, new challenges will appear. New members will take up the torch on these new challenges. That's how we find the energy to be effective.

Members with a burning desire to face environmental challenges affecting the highlands use the Conservancy as a platform from which to launch campaigns for protection and preservation. That's how the Conservancy's founders saw it working; that's what our organization's by-laws contemplate.

And it's happening as we speak. Ain't it great!??

Let's keep it rolling!! ✦

**HASTY from page 5 concl.**

The problem of global human population is an immensely complicated one, inextricably tangled up in questions of politics, economics, race, religion, culture and ecology. It will require an enormous effort of imagination and will to solve -- if indeed it can be solved. For environmentalists, it is a challenge that must be addressed, unless we just want to wait for Nature -- who abhors imbalance as much as vacuums -- to solve the problem for us.

Michael Hasty, when he isn't hiding out from coal, timber and chicken barons, writes scintillating essays. He also has a column with the Hampshire Review. You can access his weekly column on the Internet at www.hampshirereview.com. ✦

COAL from page 1

compounds other coal-related problems: heat stress exacerbates urban air pollution, and higher temperatures make natural systems more vulnerable to acid rain impacts.

Stabilizing atmospheric CO₂ levels at 450 parts per million during the next century, which some scientists believe necessary to avoid far more dangerous disruptions of climate, would constrain coal use to somewhere between 200 and 300 billion tons – less than 7 percent of the total resource base. Burning the entire coal resource, on the other hand, would release 3 trillion tons of carbon into the atmosphere, five times the safe limit. Thus, while energy analysts point to the apparent size of the fuel's reserves, the amount that could be safely used is far smaller. From the perspective of balancing the carbon budget, coal is a highly limited energy source.

Despite studies showing the economic feasibility of switching from coal, several governments and industries are pursuing another end-of-pipe solution: carbon sequestration. Firms and agencies in the United States, Norway, and elsewhere are devoting millions of dollars to test technologies for separating and capturing CO₂ from fossil fuels. The CO₂ would then be locked up by injecting it into oceans, terrestrial ecosystems, and geological formations. But the potential impacts on ocean chemistry and deep-sea ecosystems have not been explored, and injected emissions could be re-released due to geological activity. And if sites subject to slow release are used, carbon management could reduce atmospheric CO₂ concentrations in the near term but increase them in the long term – adding to the climate problem.

Meanwhile, some industrial nations seeking developing-country action on climate change are, contradictorily, redirecting clean coal programs over-seas. In a novel form of trade "dumping," clean-coal equipment features prominently in bilateral energy missions, with firms and officials from the United States, Japan, and Australia proselytizing to poor nations that they "need clean-coal technologies." The World Bank and European Commission have aimed clean-coal technology initiatives at developing and former Eastern bloc nations, where the technologies remain unproven. Indeed, clean-coal equipment has failed to demonstrate financial viability in the West (its high capital investment costs make it less attractive than natural-gas-fired combined-cycle turbines), linking its peddling less to economics than to the political clout of the industry.

Exhibit D: Losing Labor

"The story of coal in America," writes Duane Lockard in *Coal: A Memoir and Critique*, "is the story of corporate successes and excesses generally." The same can now be said for the coal industry worldwide. Shrinking profits and growing deficits are leading to drastic cost-cutting practices that translate into lower prices but also major job losses, creating an employment crisis among coal miners around the globe. It is, however, both necessary and possible to reduce reliance on coal while minimizing the displacement of workers that inevitably accompanies the decline of an industry.

Shrinking profits and growing deficits are leading to drastic cost-cutting practices that translate into lower prices but also major job losses, creating an employment crisis among coal miners around the globe.

Worldwide, only about 10 million coal mining jobs remain, making up one-third of all mining jobs and accounting for one-third of 1 percent of the global workforce. In industrial nations, the coal-mining industry is no longer a major employer, and employment is falling even where production or exports are rising. In developing countries and transitional economies, where employment is still relatively high, pressures to reform the industry and cut costs are causing major job dislocations.

Like other sunset industries, the coal sector is increasingly characterized by bigger and fewer companies, more and larger equipment, and less labor-intensive operations. In the United States, the 10 largest firms account for 60 percent of output, up from 35 percent a decade ago. During coal's peak, in 1924, 705,000 miners toiled in U.S. mines; today there are fewer than 82,000. Thanks mostly to surface mining, employment has declined by two-thirds over the last 20 years and is expected to continue to fall; coal miners now count for less than 0.1 percent of the nation's workforce. Though domestic consumption continues to crawl upward, exports have dropped 25 percent since 1996, and experts agree that they will never return to pre-1998 levels.

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The rate of contraction has as much to do with politics as with economic and environmental factors. Coal industries in both the United Kingdom and Germany have been weakened since the 1960s by environmental regulations and the switch to cleaner natural gas, now the fuel of choice for power generation in industrial nations. But while contraction in the United Kingdom has been rapid – only 13,000 union coal miners remain, out of 1.2 million in 1978 – the decline in Germany has been more gradual, from 190,000 in 1982 to less than 90,000 today.

Similar struggles lie ahead for other coal-dependent nations. In Australia, 9,000 of the nation's 22,000 coal miners went on strike in 1997 when impending job cuts led Rio Tinto, the world's largest mining company, to try to deunionize the industry. In South Africa, coal production has risen 65 percent, but employment has fallen over 20 percent, since 1980. In India, where production has doubled since 1980, employment is still declining as a proportion of population. Poland's mines lose nearly \$700 million each year. Russia has halted production in 90 mines and intends to have shut 130 of its 200

mines by 2000. Major future losses are expected in these countries as improved productivity and the shift to less energy-intensive service industries make more jobs redundant.

Cost cutting, mine closings, and job losses are greatest in China, where Li Yi, director of the Xishan coal mining bureau, summed up the industry's prevailing philosophy in a 1998 interview: "Our motto is: Cut people, improve efficiency." The world's leading coal producer and consumer, China has lost 870,000 workers over the last five years, and slashed production by 250 million tons in 1998 due to excess capacity and rail transport bottlenecks. (Like India, Australia, and South Africa, China faces a geographic mismatch between coal reserves and energy needs.) The government plans to close down 25,800 coal mines this year – most among the 75,000 mines in township and village areas – and shut off all small, unauthorized mines. In May 1999, the government halted the issuance of permits for new coal mining projects.

But both [China and the United Kingdom]... recognize that coal's heyday is over: they are shifting from coal-reliant industries like steel works to more modern sectors – such as the high-tech and tourism industries – and both are planning solar-cell manufacturing sites in mining areas, to ease the transition for workers.

The United Kingdom and China highlight both the challenges of and chances for helping workers in the transition to the post-coal era. In both, thousands of laid-off workers have blocked traffic, stopped trains, and stormed official offices. But both governments recognize that coal's heyday is over: they are shifting from coal-reliant industries like steel works to more modern sectors – such as the high-tech and tourism industries – and both are planning solar-cell manufacturing sites in mining areas, to ease the transition for workers.

The Light at the End of the Tunnel

The current, emergency-room approach to coping with coal has proved so expensive, yielded such limited results, and contributed to so many environmental and health problems, that shifting to cleaner alternatives will help solve these problems at a much lower cost. Treating coal's symptoms in isolation has proved insufficient for improving human and planetary health.

Fortunately, remedies are available that will allow the world to rapidly reduce the use of coal and accelerate the transition to cleaner energy sources.

Among the keys to cutting coal reliance are blocking mining and power projects through community activism, closing legislative loopholes, and reorienting coal-centric bilateral, multilateral, and multinational investment flows. But two policies are central to the "decoalization"

COAL continued on next page

Adding up the Costs of Coal

While the market price for coal was \$32 per ton in 1998, when environmental and health disruptions are factored into the equation, coal is not as cheap as it may seem.

	Air	Land	Water	Climate
Mining/ Extraction	<ul style="list-style-type: none"> ◆ Coal dust causes black lung and other respiratory diseases in miners. ◆ Mining can result in explosions and fires. ◆ Machinery causes dangerous fumes and disruptive noise. 	<ul style="list-style-type: none"> ◆ Mining causes soil degradation, erosion and subsidence. ◆ Farms and forests are destroyed and communities displaced by strip mining and mountain top removal. 	<ul style="list-style-type: none"> ◆ Watersheds are degraded and streams filled in by mountain top removal and strip mining. ◆ Acid mine drainage from tailings as well as wastewater discharge pollute rivers and drinking water sources. 	<ul style="list-style-type: none"> ◆ Mining releases large quantities of methane, a potent greenhouse gas. ◆ Greenhouse gasses released by coal mining plays a significant role in destabilizing climate, contributing to sea-level rise, weather extremes, disease outbreaks, shifts in agriculture and water supply, extensive ecosystem damage, loss of species, and other serious disruptions.
Transportation	<ul style="list-style-type: none"> ◆ Coal may be shipped thousands of miles to power plants in open train cars and barges, producing "fugitive dust" that is blown into the air. 	<ul style="list-style-type: none"> ◆ A considerable amount of land has been developed for the rails and roads that transport coal. 		<ul style="list-style-type: none"> ◆ The engines and machines used to transport coal release CO₂, the most prevalent greenhouse gas. ◆ Greenhouse gasses released by these machines destabilize climate, contribute to sea-level rise, weather extremes, disease outbreaks, shifts in agriculture and water supply, extensive ecosystem damage, loss of species, and other serious disruptions.
Treatment		<ul style="list-style-type: none"> ◆ Smokestack scrubbers used to filter sulfur out of coal emissions produce large amounts of sludge and other wastes. 	<ul style="list-style-type: none"> ◆ Coal washing, used to strip sulfur from coal before it is burned, requires large quantities of water. 	<ul style="list-style-type: none"> ◆ Technologies used to trap sulfur and nitrogen emissions require more energy, which releases more CO₂. ◆ Greenhouse gasses released by these technologies destabilize climate, contribute to sea-level rise, weather extremes, disease outbreaks, shifts in agriculture and water supply, extensive ecosystem damage, loss of species, and other serious disruptions.
Combustion/ Conversion	<ul style="list-style-type: none"> ◆ Particulates, sulfur dioxide, ground level ozone from nitrogen oxides, and toxic metals released by the burning of coal contribute to cancer risks, impair infant development, cause respiratory illness, and increase rates of morbidity and mortality. 	<ul style="list-style-type: none"> ◆ Acid deposition from sulfuric and nitric acid leaches nutrients from soils and damages forests, crops and buildings. ◆ Ozone impairs plant growth. Power plants and massive "slag heaps" – piles of ashes from coal burning – take up land and cause degradation. 	<ul style="list-style-type: none"> ◆ Acid deposition and heavy metals poison rivers and lakes. ◆ Nitrogen oxides cause eutrophication, where plant growth cuts off oxygen supplies to other species. ◆ Cooling towers demand and heat up large amounts of water. 	<ul style="list-style-type: none"> ◆ Combustion of coal is the single largest source of CO₂ emissions. ◆ Greenhouse released by coal combustion play a significant role in destabilizing climate, contributing to sea-level rise, weather extremes, disease outbreaks, shifts in agriculture and water supply, extensive ecosystem damage, loss of species, and other serious disruptions.

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process: subsidy removal and energy taxation. Without them, the market will continue to deceive us into thinking coal is cheap, abundant, and irreplaceable, just when countries like China are beginning to realize how costly, limited, and unnecessary dependence on this fuel is.

Simply put, removing subsidies cuts coal consumption. Belgium, France, Japan, Spain, and the United Kingdom have collectively halved coal use since slashing or ending supports over the last fifteen years. Russia, India, and China have also made progress: China's coal subsidy rates have been more than halved since 1984, contributing to a slowing – and 5.2 percent drop in 1998 – in consumption. Opportunities exist for further reductions. Total world coal subsidies are estimated to be \$63 billion, including \$30 billion in industrial nations, \$27 billion in the former Eastern bloc, and \$6 billion in China and India. In Germany, the total is \$21 billion – including direct production supports of more than \$70,000 per miner.

The experience of Germany highlights the opportunities for – and obstacles to – taxing coal. A European Commission study shows that internalizing the external costs of coal from a German power plant would raise the price of power by 50 percent. Yet the government's 1998 ecological tax reform excluded coal due to industry opposition.

As Ed Cohen-Rosenthal of Cornell University writes, "The question for coal miners is whether to dig in and fight or use the concern about global warming to negotiate the best deal for current members and retirees as one means of paving the way to a cleaner environment. This is a decision that only they can make and outsiders should respect their feelings. But their leverage for a negotiated outcome will never be higher than it is right now."

But while labor groups stress the need for "just transitions" to aid adversely affected workers, those representing coal miners appear less likely to become advocates of coal subsidy and tax reform, which could help fund such a transition, than to defend these endangered jobs to the bitter end – and at the expense of society at large.

Digging in has predominated to date – coal labor groups underwrite skeptical "scientists" and oppose the Kyoto Protocol – though signs of reconciliation exist. In Australia, an Earthworker caucus of trade union and environmental groups is developing a plan for building solar and wind power industries. The AFL-CIO and U.S. environmental groups are crafting "worker-

friendly" climate policies, like employing former miners in remediating abandoned mines. But while labor groups stress the need for "just transitions" to aid adversely affected workers, those representing coal miners appear less likely to become advocates of coal subsidy and tax reform, which could help fund such a transition, than to defend these endangered jobs to the bitter end – and at the expense of society at large.

Bold initiatives in coal taxation, meanwhile, can be found in China. The government has introduced a tax on high-sulfur coal to encourage a switch to plentiful natural gas and renewable-energy resources. Like cigarette taxes in the West, the coal levy may spread in the East; as with smoking in public places, coal use might also be banned outright where it is deemed too great a public burden to bear.

Back in Beijing, high-sulfur coal has been banned, 40 "coal-free zones" are planned, and natural gas pipelines are under discussion. Hundreds of residents in Beijing are mobilizing through citizens' groups, such as the Global Village, to supervise implementation of the policies and raise public consciousness of the problem. The idea is catching on: four more Chinese cities – Shanghai, Lanzhou, Xian, and Shenyang – have followed suit with plans to phase out coal.

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Action Alert!

West Virginia Rivers Coalition, September 21, 1999

Comments Needed for EPA on Factory Farm Guidelines!

In West Virginia's Potomac Headwaters, large poultry farms are a major source of water pollution. The West Virginia Rivers Coalition has been working to bring attention to these operations that threaten the state's drinking water supplies and recreation opportunities, since one-third of samples taken in this region have exceeded bacteria safety standards and because the state government regulates factory farms very poorly.

The Environmental Protection Agency (EPA) is currently drafting guidance for state governments to designate what factory farms need a Clean Water Act permit and what those permits should look like. This guidance is the first action step taken by EPA and the U.S. Department of Agriculture (USDA) since they released their Unified National Strategy for Animal Feeding Operations in March, so this is our first chance to judge how committed the two agencies are to addressing factory farm pollution.

Although the guidance has good aspects, like language on integrator liability, it hands off major decisions on most issues to the USDA -Natural Resources Conservation Service (a non-regulatory agency), and the state permitting agencies, which would likely have weak enforcement standards.

****ACTION****

Write a letter to Gregory Beatty at EPA with these points about the "Draft Guidance Manual and Example NPDES *Permit for Concentrated Animal Feeding Operations." This guidance is EPA's first concrete step in implementing the AFO ** Strategy, so it's important that we flood them with comments to strengthen the proposed standards! **COMMENTS ARE DUE OCTOBER 25, 1999.** Since these comments are lengthy, it may be helpful to simply cut and paste the points below into a new document. In your letter, tell Mr. Beatty that:

- * EPA is to be commended for requiring that Concentrated Animal Feeding Operations (CAFOs) obtain Clean Water Act permits. Clean Water Act permits allow for protections such as citizen lawsuits against polluters and penalties for polluters.
- * However, the content of the permits is just as important as the effort to issue the permits. EPA's Unified National Strategy for Animal Feeding Operations promised the creation of a national program for CAFOs that established minimum national standards for pollution controls at factory farms. But EPA's Draft Guidance Manual and example NPDES * Permit for CAFOs grant far too much discretion to the states as they create their permit programs. The result will be continued weak and variable state programs and pollution problems and public health threats from factory

farms. The draft documents also fail to provide citizens with the information that they will need to make polluters accountable for the environmental harm that they cause. And the draft documents inappropriately delegate standard-setting and other significant powers to USDA, which has no regulatory role in the protection of waterways.

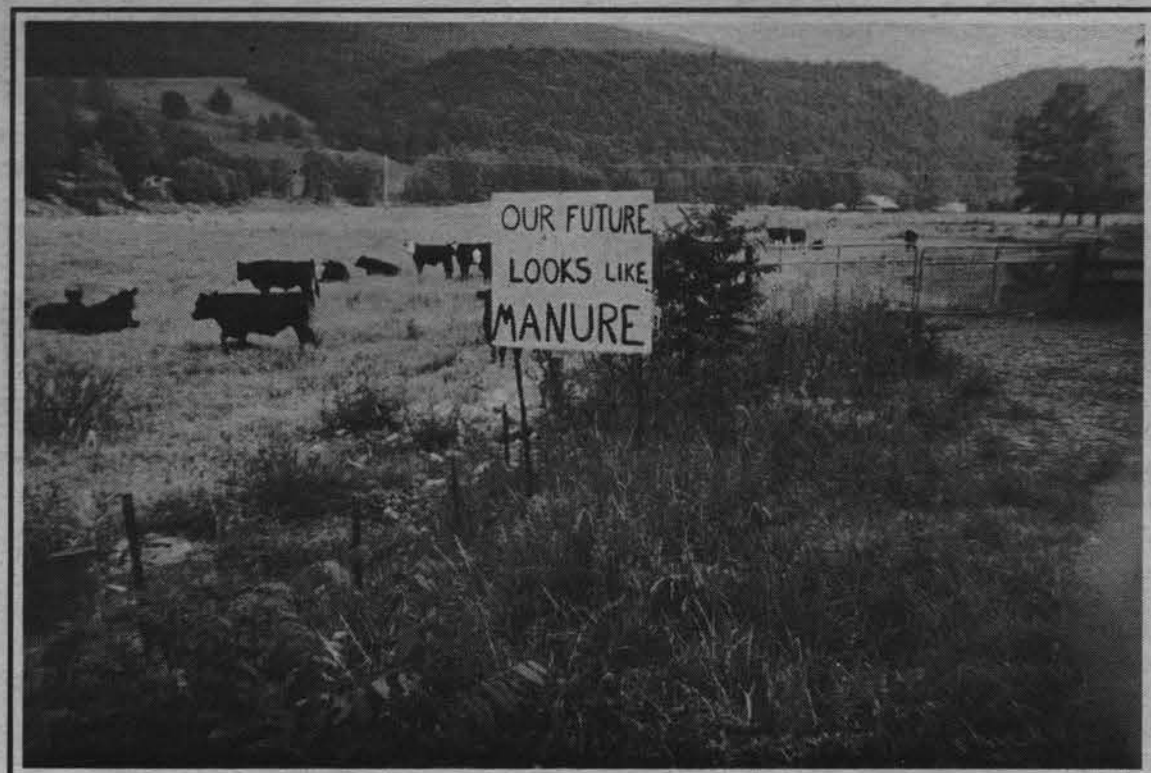
- * There is no independent review process required for manure management plans, or Comprehensive Nutrient Management Plans (CNMPs). Only the third-party consultants hired by the factory farms to write CNMPs will evaluate the plans for adequacy. Despite the obvious conflict of interest and the heavy reliance on these plans as the "heart" of the permits, no oversight or review role is anticipated by any government agency. Plans will be kept on-site rather than kept on file along with the permit, making it hard for citizens to access the information. Moreover, USDA standards on which the plans will be based are minimal, open-ended, inadequate at the national level, and are not designed to assure compliance with the Clean Water Act. In fact, USDA's national standards may be based upon the weakest state standards, anticipating (sometimes erroneously) that they will be strengthened at the state level. We recommend that the draft documents establish minimal permit conditions that are included in all permits, not just in CNMPs. Additionally, CNMPs for regulated entities should all include a baseline of measures that are included in every plan across the country, and standards should be based upon the strongest state programs, not the weakest. All CNMPs should be reviewed by water quality agency

personnel to ensure that they protect water quality, do not conflict with other CNMPs within a particular watershed, and address cumulative impacts. If a CNMP is deemed to be inadequate, the Clean Water Act permit associated with it should be revoked. Finally, CNMPs should be included in the permit documents that are kept on file with the state water quality agency or EPA.

- * The draft documents fail to ensure that all CAFOs with more than 1,000 animal units will be captured in the permitting system. First, the draft documents allow certain facilities to be exempt from permit requirements altogether if they claim that they will not discharge in waterways. Second, the draft documents fail to establish criteria for how states will make such a no-discharge determination. Third, it will be hard to capture many poultry operations since first proof must be provided that they are either over-applying the litter to the land or storing the litter uncovered. The draft documents should mandate that all CAFOs obtain Clean Water Act permits.

- * The draft documents recommend too much reliance on general permits, which allow no public involvement in the permit terms for specific facilities, and elicit very little regulatory oversight by water quality agencies for the facilities requesting these permits. While a helpful subset of facilities is identified for individual permits, states are given too much discretion in determining what types of facilities meet the criteria (with the notable exception of the mandate for new facilities to obtain individual permits). Instead, individual permits should be recommended for all CAFOs.

ACTION ALERT concl. on next page



ACTION ALERT from preceding page concl.

Please send your comments by mail to:

Gregory Beatty
US EPA
401 M Street, SW
Mail Code 4203
Washington, DC 20460.

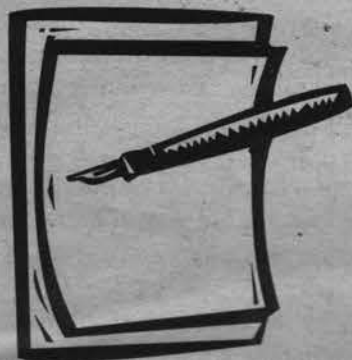
Submit comments electronically to
beatty.gregory@epa.gov

If you have questions, contact Pam
Moe-Merritt at West Virginia Rivers Coalition at
pmoe@neumedia.net or call 304/637-7201.

Thanks for writing to EPA, and thanks for
helping protect West Virginia's exceptional rivers
and streams!

* National Pollution Discharge Elimination
System

** Animal Feeding Operation

**JANES from page 1 concl.**

The danger is that USDA, in trying to protect corporate agriculture, will move into a dominant roll, stepping in to make decisions and offer weak or even non-existent regulatory oversight. EPA, happy to have USDA in their court, might acquiesce to anything that seems like a first step.

And that is just what seems to be happening this summer. Proposed nutrient management polices and permitting guidance promise to be weak and rely on details set by USDA. And what is worse for West Virginia is that the strong federal guidance that was promised has once again been delegated to the states. Major policy decisions could be made in little-known, state-level USDA offices with no significant public input.

This is a big setback for West Virginia, and the nation.

And what is even worse is that with all of the media attention on the administration's program, the general public has gained confidence that the problem is being taken care of. The real question is not if, but when, the plan will backfire. We ask the Clinton/Gore administration to keep their promises. As new guidance on UNSAFO comes out, we ask them to send a strong message to corporate agriculture. We ask them to take an honest first step towards protecting our waters from factory farm pollution.

Dr. Janes is co-chair of the West Virginia Rivers Coalition board of directors and sits on the Clean Water Network's National Feedlot Steering Committee.

West Virginia Water Quality Anti-degradation Law *WAY* Overdue!

By Don Gasper

It has been 27 years since the Clean Water Act was passed. **Twenty-seven years since states were to implement an important provision of the Act called "anti-degradation." But after all that time, West Virginia still hasn't done so** [bold added by editor].

Properly implemented, "anti-degradation" gives citizens the opportunity to speak out against proposed pollution when private gain outweighs public good. Rivers and streams from which we draw drinking water, and in which we swim, boat and fish are greatly threatened without anti-degradation measures in place.

The federal Clean Water Act has two main goals, basically: (1) how to clean up dirty waters, and (2) how to keep clean waters clean. Keeping the clean waters clean – that's the anti-degradation focus.

The US Environmental Protection Agency (EPA) has made several attempts to get an anti-degradation policy implemented in West Virginia, and last year West Virginia's Environmental Quality Board tried to comply. However, "industry and other groups strongly opposed it, so the Board backed off," with intense resistance from coal, timber, and chemical interests, and organizations like the WV Farm Bureau, WV Manufacturers Association and even the WV Department of Agriculture.

In West Virginia, the Board oversees standards relating to water quality issues, and is charged with submitting an anti-degradation implementation plan to the state legislature. The state Division of Environmental Protection (DEP) is the main agency responsible for implementing the policy once the legislature passes it. The EPA has federal oversight and ultimate responsibility to see that the duties of the Board are carried out. EPA has the power to either approve or disapprove any plan the legislature passes.

Environmental groups backing the Board's efforts suffered a defeat when the Board withdrew their plan. The groups then threatened to sue the EPA. Since then EPA has put West Virginia's implementation plan on the fast track. EPA instructed the Board to put together a proposal for the legislative agenda. EPA said that, should the state fail to get together an implementation plan, EPA itself would set the rules by which the policy would be put in place. Over the past couple of months, state officials have been scrambling to put a draft plan together for public comment to meet August deadlines for the legislative agenda.

The Board has come up with an innovative, workable approach to define "degradation" -- a decline in water quality by 5%. This would trigger an agency review of its justification with the public good the primary consideration.

It is important that the WV Legislature and Governor do not believe that they can weaken the Board's proposed law which would surely be just barely acceptable to the EPA.

Having anti-degradation provisions in place is important for it would restrict stream pollution to only that which is necessary only for the public good, not private gain for a privileged few. Plus, companies have to look at lesser-polluting alternatives, and stream degradation would be a last resort. Also, anti-degradation gives a great deal of protection to high-quality waters.

You can write the EPA and plead [I would say "demand!" Ed.] for a continued insistence on a truly adequate "Anti-degradation" Law and Regulations in West Virginia, at EPA Region III, 841 Chestnut Street, Philadelphia, PA 19107. Write the WV Environmental Quality Board at the WV Department of Environmental Protection, Water Resources, 1201 Greenbrier St., Charleston, WV 25311. Also write to your legislators in Washington and Charleston, and our Governor.

Don says that much of his article was taken from the West Virginia Rivers Coalition's newsletter, "Headwaters." He is a retired fish biologist.

Editorial comment: It is clearly a disgrace that our political process has been so corrupted by those primarily motivated by greed, thereby compromising the health of the general population of West Virginians! It is also a disgrace that the EPA has taken so long to move on this important issue!

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on page 16



Lack of Yard Waste Composting in Wheeling, West Virginia, in The Context of Statewide Legislation And Regulation

By Mel Finstein

Yard Waste: Makeup and Amount

West Virginia law defines yard waste as being "...grass clippings, weeds, brush, garden waste, shrub or tree prunings and other living or dead plant issues...[unless]... inadvertent contamination or mixture with other substances...render the waste unsuitable for composting."¹ This established the intent of the law, which is for yard waste to be composted so that it may be usefully recycled as an organic soil amendment.

In rural areas, such as much of West Virginia, yard waste is generally returned to the soil either through backyard composting, or by default by leaving it in place to decompose informally. This process mimics what happens in "nature," in that plant nutrients are re-circulated through successive cycles of growth and decay while maintaining the soil's organic content.

In built-up areas, however, yard waste needs to be managed deliberately. For cities with substantial residential and suburban areas, such as Wheeling (population 33,000), a generally accepted estimate is that yard waste makes up around 16% of the overall, yearly waste collected at curbside². In the spring and fall when grass clippings and leaves appear in great amount, yard waste can comprise as much as half of the overall collection.

Traditionally, a large proportion of urban/suburban yard waste is collected separately, rather than being mixed with other household wastes ("garbage or trash"). Source-separated yard waste may be picked up at curbside, particularly in October and November, with a special vacuum machine or a dump truck and front-end loader along with manual raking and sweeping. Some communities require yard waste to be bagged separately from other waste fractions.

Appropriate Municipal-scale Composting Technology

Unlike mixed garbage or sewage sludge, separately collected yard waste can be composted effectively through simple, low cost, methodologies³. Essentially, given a suitable site, the major steps may be as follows.

◆ Water is added, if needed, and, using a front-end loader, the material is formed into windrows approximately 6 feet high by 12 feet wide. Windrow length depends on site configuration.

◆ One to two months later (late fall-early winter), two windrows are combined into one. This steers a middle course between the need to allow air to penetrate the mass, and the need to conserve heat (generated through microbial action) over the winter.

◆ Once more over the processing cycle, the material is agitated ("turned").

Over the course of 12-16 months, the material is transformed, through the action of indigenous, beneficial, microbes, to earthy, stabilized, compost. For every ton of yard waste received, about half a ton of compost is produced. Depending on circumstances, a less intensive (slower transformation), or a more intensive (faster transformation), processing strategy may be adopted.

Compost derived from mixed garbage, and especially from sewage sludge, may contain pathogenic, disease-causing, organisms, and potentially harmful levels of heavy metals. Yard waste cannot be said to be invariably free of such problems as, for example, with leaves spending time underneath a car with a leaky crankcase. But in general compost derived from yard waste need not be suspect and may be considered safe for use in the most sensitive of applications, as in the vegetable garden.

Thus, there are two good reasons to manage yard waste separately from other wastes. One concerns the process (composting), in that simple, economical, technologies may be employed. The other reason concerns the product (compost), which is generally safe for unrestricted use.

Landfilling Vs. Composting of Yard Waste: Legislative and Regulatory Twists and Turns

To understand the present situation it is necessary to wade through a legislative and regulatory labyrinth -- at least in abbreviated form.

The West Virginia Recycling Act of 1989, as amended in 1991, prohibited the disposal of yard waste in landfills, while mandating the composting of this fraction of the waste stream. Originally the ban was to take effect on 1 January 1992, but the legislature subsequently extended the deadline, first until 1 June 1994, then till 1 January 1996, and finally till 1 January 1997. This law states: "...it shall be unlawful to deposit yard waste, including grass clippings and leaves, in a solid waste facility in West Virginia; Provided, That such prohibitions do not apply to a facility designed specifically to compost such yard waste..."⁴. But in the next breath this same law introduces a significant loophole: "...Provided, however, That reasonable and necessary exceptions to such prohibitions may be included as part of the rules promulgated..."[by the Division of Environmental Protection (DEP)]. The law then goes on to limit, at least by intention, the size of the loophole: "...Disposal in a ...landfill...will involve only small quantities of domestic yard waste..."⁵

The rule subsequently promulgated by the DEP merely indicates that the Director has the authority to determine whether there are "...reasonable and necessary..." mitigating circumstances⁶. The operative document is the Director's Policy Statement, addressed to Landfill Operators, Composting Facilities, Solid Waste Authorities, Solid Waste Haulers, and Municipalities⁷. In it he first notes that the composting "...option..." is not always practical, hence yard waste may be landfilled. Then the recipients of the letter "...are strongly encouraged to seek out and utilize yard waste composting facilities." What is omitted from this statement is any directive, or even explicit encouragement, to develop yard waste composting facilities. Since existing facilities are few and far between, the Director's letter could be interpreted as a license to continue the old way of doing business. As will be shown, this was the effect in the city of Wheeling.

Yet, legislation specifically encourages the development of composting facilities that accept yard waste "free-of-charge."⁸ This section of the law pertains, for example, to proposals by municipalities to develop facilities intended solely for their own use (no fees collected). Such facilities are exempt from the usual, often lengthy⁹, regulatory permitting process. Provided that a proposed facility conforms to the particular county Solid Waste Authority's overall plan and to the siting and operating requirements of 33CSR3, and did not require a National Pollutant Discharge Elimination System (NPDES) or Stormwater Discharge Permit, it merely has to be registered with the WVDEP¹⁰.

It seems fair to characterize West Virginia legislation and regulation on yard waste management as confused and self-contradictory. On the one hand, the law prohibits the landfilling of this fraction of municipal solid waste and requires that it be recycled through composting. On the other hand, if local decision-makers deem yard waste composting to be inconvenient, the practice of landfilling is allowed to continue.

Notwithstanding the legislative and regulatory twists and turns, the law's basic intent is clear. This is that yard waste is to be diverted from landfills to composting facilities so that it may be usefully recycled.

City of Wheeling Continues Landfilling Yard Waste

For "...small quantities..." of yard waste, the law provides for "...reasonable and necessary..." exceptions to the composting mandate. This is at the discretion of the Director of the WVDEP. Although Wheeling continues to

COMPOST concluded on next page

COMPOST from preceding page concl.

landfill large amounts of separately collected yard waste, there is no record of the City having requested an exception or having been granted one ¹¹.

As a rough estimate, the City's Department of Sanitation collects 2,000 tons of source-separated yard waste, mostly leaves, in the fall season ¹². This material is deposited in privately owned containers, then hauled by the company to its own landfill 9.1 miles distant for burial. The total annual cost to the City (hauling and tipping fees), exclusive of curbside collection, is estimated at roughly \$93,000.

Yet within the boundaries of its landfill, disused since 1992, the City owns an ideal site for yard waste composting. The comparative hauling distance is 2.1 miles by one route, and 2.2 mile by another. Windrows could be formed on a level-to slightly-sloping five-acre area adjacent to the fill itself. This area has a hard surface, as the soil was scraped off for use as cover material. A water standpipe and truck weighing scale are at the threshold to this area. Owing to steep surrounding hills, the site is remote from houses.

The first reaction of City officials to the suggestion that Wheeling establish its own yard waste composting facility was frankly negative. The absence of pressure from the WVDEP was noted. In effect, the City has been let off the hook. A second, more considered, reaction was that the matter would be looked into. This was in early September.

At the time of writing, it is uncertain whether the City of Wheeling will begin to compost its yard waste rather than continuing to landfill it. Two things are certain. One is that the City is currently violating the law in this regard. This condition could be terminated easily by establishing a composting operation, while saving taxpayer money. The other certainty is that autumn is near and the leaves have started to fall.

¹ West Virginia Code (20-11-8(d).

² West Virginia Solid Waste Management Plan, Prepared by the Solid Waste Management Board, January 1999.

³ Peter F. Strom and Melvin S. Finstein. (1985, reissued 1994). New Jersey's Manual on Composting Leaves & Management of Other Yard Trimmings. Department of Environmental Science, Cook College, Rutgers University; and the New Jersey Department of Environmental Protection. Copies may be obtained by calling NJDEP at (609) 530-8115.

⁴ West Virginia Code 20-11-8(a).

⁵ West Virginia Code 20-11-8(e)(1).

⁶ 33CSR3 West Virginia Division of Environmental Protection "Yard Waste Composting Rule" effective 5 May 1997

⁷ John E. Caffrey, Director WVDEP, letter of 6 May 1997.

⁸ West Virginia Code 20-11-12.

⁹ West Virginia Solid Waste Management Plan, Prepared by the Solid Waste Management Board, January 1999.

¹⁰ WVDEP, Registration Form for a Non-Residential Composting Activity.

¹¹ Personal communication, Mr. Bill Rheinfelder, WVDEP Records Department, 14 September 1999.

¹² Municipal-Scale Composting of Separately Collected Leaves and Yard Waste: Benefits to the City of Wheeling, West Virginia. Presented by M.S. Finstein to the Ohio County (WV) Solid Waste Authority, 26 August 1999. The Authority voted to submit this report to the City with the recommendation that it be implemented (Wheeling News-Register, 27 August, 1999, p.19).

Mel Finstein is Professor Emeritus (Environmental Science) at Rutgers University, New Jersey. Having recently retired, he resides in Wheeling with his wife Jeanne. He may be contacted at: finstein@envsci.rutgers.edu. The author thanks Tom Degen for helpful discussions, and for providing certain documents. ❖

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"... The capacity for restraint based on knowledge and compassion is a genuine, though embattled, source of hope. Whenever the EPA proposes higher standards for emissions from smokestacks and cars, for example, critics attack the standards as too expensive, claiming that the richest country in the world can't afford to pay the real price of energy, nor cut back on the use of electricity and gasoline in exchange for breathable air. For every voice that echoes Thoreau's 'Simplify, simplify,' a dozen cry, 'Amplify, amplify!'

"The present scale of human destructiveness is unprecedented, but the impulse to eat whatever's in reach is entirely natural. What is unnatural, what comes only from culture, is reflection and regard for other life forms. We're the only species capable of acting, through love and reason, to preserve our fellow creatures.

"If our addiction to growth is rooted in evolutionary history, we can't just decide to feel good about living with less. We can, however, shift the focus of our expansive desires. We can change the standard by which we measure prosperity. We can choose to lead a materially simple life not as a sacrifice but as a path toward fulfillment. In ancient terms, we can learn to seek spiritual rather than material growth."

-- Scott Russell Sanders in Audubon, July/Aug. 1998

COAL from page 9 concl.

A global coal phaseout has become as environmentally necessary and economically feasible as it might seem politically radical.

The challenge is to turn these local gains into a worldwide movement over the coming century, just as coal's negative consequences have risen from local to global during this one. A global coal phaseout has become as environmentally necessary and economically feasible as it might seem politically radical. Thirty years ago, few could have predicted the nascent anti-smoking effort would ever "go global," but it has. Coal now poses as serious a risk to our collective well-being, if not greater. If China's smoky cities can mobilize to begin eradicating the tobacco of our energy system, it is conceivable that the rest of the world's governments can as well.

Like sustainable development more broadly, achieving independence from King Coal will be no overnight coup, but a lengthy revolution. Yet the social, economic, and environmental rewards of a coal phaseout promise to be enormous. In the third millennium, societies will find themselves -- to paraphrase Henry David Thoreau -- rich in proportion to the coal they can afford to leave in the ground.

Seth Dunn is a research associate at the Worldwatch Institute. ❖

Wetlands Study Shows Much Promise

Preliminary Positive Results in the Passive and Effective Treatment of Acid Mine Drainage

By Bob Bonnett, Jr.

(Many thanks to Bob for this submission, and to Tim Craddock, Environmental Coordinator of the WV Dept. of Natural Resources who contacted me initially about this article)

Putnam County may not quickly come to mind when we think about acid mine drainage, but the problem certainly exists for Manila and Heizer Creeks located near Poca. Mining in this area occurred prior to environmental considerations, and the two streams suffered the consequences. While Abandoned Mine Lands and the Office of Surface Mining have looked at the problems, members of the Heizer-Manila Watershed Association are working to solve them. My involvement with the Association as an intern with the Office of Surface Mining, provided me with the opportunity to investigate methods to treat acid mine drainage.

Part of my duties for the watershed association includes stream monitoring. Water quality testing of Manila Creek indicated high amounts of iron and acidity in the stream. It is a consideration with any community project, to look at the long term effects and benefits as carefully as possible. Wetlands seemed to be the answer, at least for some sections of the stream. They provide long term treatment with little or no maintenance. Measuring the cost of other techniques against the potential for wetland treatment found that using wetlands to treat acid mine drainage, by far out weigh the cost of other methods. A little research concluded that wetlands have been found to improve a variety of water quality problems. Armed with this information and additional resources on other wetland projects provided by the West Virginia Division of Natural Resources; Environmental Resources Section, I made the decision to develop a pilot wetland project (Picture 1).

The release of mine drainage (increased potential long-term benefits of wetlands include a cleaner alkalinity and reduced iron contents in the stream), a place of interest and learning for the community, and improved wildlife habitat. Another important factor was that a wetland project could be constructed in a non-invasive manner. The location to construct and restore the wetland is another important part of the success of the project. Having the project in a public area where people could see the results would increase public awareness about the benefits of wetlands. It was decided to utilize the Amherst Plymouth Wildlife Management Area (WMA) on Manila Creek near Poca (Picture 2).

One thing that was not known at the time the project was conceived, was how it would be perceived by the manager of Amherst Plymouth WMA and the Office of Surface Mining. The answer was overwhelmingly positive! Wetlands, when present, are one of the most productive parts of the ecosystem, the lack of them can have a great impact on the overall environmental integrity of an area.



Picture 1: The source of acid mine drainage at Manila Creek. The mine sediment collected over an area 3 feet thick, 6 feet wide, and 11 feet long. The pH of the water at the source is 3.5, the iron content is 567 mg/l, and the flow is a consistent 42 GPM.



Picture 2: An existing wetland area near the source of the acid mine drainage. The stream from the abandoned mine had channelled around the area leaving it relatively dry, except during high water events.

WETLANDS concl. on next page

WETLANDS from the preceding page concl.



Picture 3: After cutting weeds and removing trash from the area, a small dike was constructed creating a sediment catch basin and additional flooding in the wetland area. This resulted in the runoff from the abandoned mine (Picture 1) flowing directly into the wetland. Sixty additional cattails were transplanted to the area from a construction site to compliment the existing species. Preliminary water quality tests on the outflows from the wetland show a pH of 5.1 and an iron content of 67 mg/l. I believe that the water quality will continue to improve as the wetland area continues to develop.

AEP, You Can Stonewall, You Can Deny, but You Can't Hide!

Report by Ethyl Grant on 6-7-98 on the
Environmental News program over radio station,
WETS from Johnson city, TN.

Ohio's 26 coal burning power plants emit tons of mercury in the waters around the Great Lakes, threatening the people and wild life while state and federal environmental organizations continue to look the other way. That's the thrust of a National Wildlife Federation report from their Great Lakes Resource Center called "Ohio's Mercury Menace."

According to an EPA report, power plants are responsible for increasing mercury emissions nation wide. Mercury, which occurs naturally in coal, is a highly toxic substance that is especially dangerous to unborn children. Fetal exposure can harm the brain and nervous system, causing irreparable problems with attention, learning and language development.

One drop of mercury can contaminate a 25-acre lake to the point that fish are unsafe to eat. A single, one-hundred megawatt coal burning power plant emits about 48 pounds of mercury every year into the atmosphere. Because Ohio generates 90% of its electricity by burning coal, its power plants spew as much as four times more mercury into the air than those of other Great

Lakes states. The report highlights the concern that coal-burning power plants are not required to control mercury emissions. Ohio's newly adopted rules under the Great Lakes Quality Initiative requires industries to meet tight new standards for mercury discharged into water, but power plants continue to escape smoke stack regulation. ✦

More Support For Blackwater Canyon National Park

(The following was adapted from an editorial in the Clarksburg Exponent on August 28)

Efforts to save Blackwater Canyon from private development received a boost this week from the National Park Trust, which endorsed a plan to make the canyon a national park.

The Blackwater Canyon is one of nature's wonders. It's a trademark of the state's beauty and a key part of the tourism industry in Tucker County. More than 13,000 residents have signed a petition calling for the creation of the Blackwater Canyon National Park. And environmental groups have been spearheading the drive.

But there are many obstacles to overcome -- roadblocks only our congressmen can help remove.

The project will be expensive. More than 3,000 acres of the Blackwater Canyon are owned by John Crites of Allegheny Wood Products.

The cost of the restorations was minimal, and in comparison to all other methods, it is virtually pocket change. The biggest investment is the time and labor involved in construction and restoration. A small dike was built around an existing wetland to create additional surface area, and provide a pathway for the impacted stream to flow into the wetland. Native West Virginia wetland species such as cattails, sedges, and rushes were planted to compliment the species already present in the area. A noticeable difference could be seen almost immediately, the once dry area became saturated with water. It may be some time before a true measure of success can be seen; however, preliminary testing show improvements in the water quality (higher pH and lower iron concentrations). Water from mine drainage is now given a chance to be treated before it trails off into the stream. A wetland holds water like a sponge, which is another advantage for treatment. It also helps minimize flooding. After some rain in the area, there has been no impact due to the partial impoundment of the wetland area. It is also important to note that even in one of the driest summers recorded in West Virginia, the wetland area has remained lush and green (Picture 3).

Perhaps it is only natural to consider wetland creation and restoration in areas such as Heizer and Manila Creeks. Past treatment methods have been costly and offered little or no community involvement. The wetland pilot project offered the opportunity to approach the problem of acid mine drainage through a low cost, hands-on environmentally friendly method.

Bob Bonnett, Jr. is with the Heizer-Manila
Watershed Association. He can be reached at:

Bobby L. Bonnett, Jr.

RR 1, Box 216

Poca, WV 25159

e-mail <Bonnett1@newwave.net> ✦



We're sure he will want some financial gain on his investment. But the value of saving a natural wonder is priceless to our children and our children's children.

We've only been given one earth. We need to protect its beauty. And our congressional delegation needs to be leading the fight. They can start with the Blackwater Canyon.

(This editorial reflects the opinion of the Exponent editorial board, which includes John G. Miller, Julie R. Cryser, James Logue, Kevin Courtney and Cecil Jarvis.) ✦



Seneca Rocks – Note climbers on summit
Photo: Gerald Ratliff

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Quarries Bill in the Making September Interim Report

By Tom Degen

A draft quarry bill was presented to Judiciary Subcommittee A on Monday, September 13. The explanation of the bill took up the entire meeting--no other business was taken up.

The major provisions of the bill are:

- ◆ Several previously unregulated minerals are covered, including sandstone, limestone, chert, flint, dolomite, and borrow material;
- ◆ Most of the provisions authorizing the DEP director to deny permits in sensitive areas or where other existing uses would be impinged upon have been retained. However, replacing the existing word "hazard" with "substantial harm," may make it more difficult to deny permits in those instances;
- ◆ The right of citizens to sue the agency if the director fails to discharge his/her duty has not been carried over from the existing act;
- ◆ There are mandatory public hearings on new permits; major modifications are treated like new permits, including provisions for public hearings; and there is public notice, but no hearing, on minor modifications. No public notice or hearing on transfers;
- ◆ Insurance required has been raised to \$1 million for personal injury, and \$500,000 for property damage;
- ◆ Bonding requirements were raised to at least \$1,000/acre, with a minimum of \$10,000;
- ◆ Permit fees are increased;
- ◆ All blasting is rolled up into the office of blasting created last year;
- ◆ An abandoned quarry fund is created and funded by the interest from a bonding pool, as opposed to a per ton severance tax;
- ◆ Water replacement requirements are there, but there are no requirements for baseline testing,

which will make it hard to show that there has been damage done. The rebuttable presumption is the same bogus one that is in S.B. 681;

- ◆ The exemption from the groundwater act that was in last year's industry bill is there;
- ◆ There is no requirement for highwall reduction;
- ◆ Grandfathering is extended to permit renewals, which means existing quarries will never have to comply.

Senate Co-Chair Snyder offered the stakeholders the opportunity to meet with the staff attorneys and discuss the bill. The meeting was the next day, and was attended by seven industry people, three WV Department of Environmental Protection (DEP) people, Rick Eades, and myself -- a pretty typical breakdown of the attendance at these types of meetings. Two committee members attended, Senator Snyder and Delegate Mahan.

It is pretty clear that there is major disagreement between us and industry over anything to do with groundwater monitoring/protection/replacement. Rick and I were pleasantly surprised that DEP beat us to asking for pre-quarrying water sampling for quantity and quality of surface and groundwater;

Industry doesn't want to be required to reduce highwalls. They repeatedly mentioned as an example of reclamation just letting the hole fill up with water and fencing it off;

The Industry wants their own board, not the surface mining review board, for administrative appeals.

We didn't get to grandfathering, but it will be an area of huge disagreement.

The reclamation fund mechanism needs a lot of work; and of course, the industry is

complaining about fees already, and keeping the funding low will be one of their mechanisms to sabotage the agency's effectiveness.

There will be another stakeholders meeting on October 6. In the meantime, people who have been or are threatened to be impacted by quarries, and people concerned about the issue in general, should contact the Judiciary Subcommittee A members and thank them for the improvements that are in the bill so far, but request that the bill have real protections for water supplies, such as baseline water monitoring, a real rebuttable presumption, and no exemption from the groundwater protection act.

The agency needs enough funding to run the program, the reclamation fund needs to be adequate to actually reclaim abandoned quarries, the director's ability to deny permits should be at least as strong as in current law, and reclamation standards should provide for highwall reduction whenever possible and be protective of the public in general. Grandfathering should be limited to currently disturbed areas, so that all quarries will eventually have to comply with the act.

Asking the legislators for help during interims is important -- if we get a good bill out of interims, it puts us in a much better position when the session comes. If you have any questions or comments, please contact me. I can supply copies of the 43-page draft bill upon request.

You can contact Tom Degen at 655-8651, or e-mail < tdegen@wvwise.org > ❖

MTR Summiteers Meet

The Summit for the Mountains was held at the Appalachian South Folklife Center in Pipestem, WV, from August 27 thru 29. The purpose of the summit was to bring folks together from coal producing regions where mountain top removal (MTR) mining is a threat to communities, ecosystems, groundwater, and a growing tourism industry. It was basically a retreat to brainstorm ways in which maximum use of small resources could be used to stop or at least reduce and modify MTR mining. Also problems attendant to MTR mining were identified and included in the strategizing meetings.

Forty-two persons were registered for the full span of the summit -- a number of others came in for a lesser period of time. Eight states and the District of Columbia were represented by the participants. The Summit was moderated by Sam Cook of the Department of Philosophy at Virginia Tech. Notables participating were Harvard Ayres

of Appalachian Voices; Dianne Bady, director of the Ohio Valley Environmental Coalition; Lowell Dodge, president of Trees for the Planet; Larry Gibson of the Stanley Heirs Foundation; Carolyn Johnson, director of the Citizen's Coal Council; Kate Long, well known folk singer and author; Andy Mahler, director of Heartwood; Cindy Rank, chair of the WVHC Mining Committee; Elizabeth Sampson, president of the WV Environmental Council; Betsy Taylor of Kentuckians for the Commonwealth; and John Taylor of the Methodist Federation for Social Action.

Three working groups were organized to develop strategies: 1) for immediate action, 2) to free up reclamation money held by the federal government, and 3) education. After each group met their concerns, priorities and suggested actions were shared with the entire group.

Delicious vegetarian food was prepared for the participants.

Carol Jackson had set up her famous "cemetery" on a grassy knoll outside the ASFC for all to view. ❖

News of Note

A September issue of the "Parsons Advocate" reporting on the Tucker County Commission meeting (Blackwater Canyon lies in that county):

"Commissioner DiBacco told of a TV documentary which will be done by Public Broadcasting System. Opinions, he said, are being sought on 12 major issues within the county. Among the issues is the possibility of a national park in the Blackwater Canyon. DiBacco said he has no objection to the park as long as the county can be guaranteed financial assistance."

Supporters of the Blackwater Canyon National Park are delighted by this new show of support from the Commissioner. ❖

Letters

Dear Editor:

Last month's article "The Walk into Whitesville" failed to mention that the Ohio Valley Environmental Coalition organized the entire 490-mile "Walk for the Mountains." Larry Gibson, Julian Martin and others walked to raise awareness about the devastation caused to our state by mountaintop removal.

Of course, Carol Jackson out did herself by setting up her "mountaintop removal cemetery" at stops all over the state. The dramatic display features over 1,000 tombstones, each representing one of West Virginia's streams, mountains or communities that has been leveled, buried or otherwise severely impacted by mountaintop removal.

Hundreds of volunteers contributed to the success of the walk, whether by walking, by giving the walkers a meal and a place to sleep, or by organizing events in towns along the way. The article also failed to mention ALL the walk's supporters: the WV Highlands Conservancy, WV Environmental Council, WV Rivers Coalition, Citizens Coal Council, Coal River Mountain Watch, the Monacan Indian Nation, members of the Baha'i faith, Stanley Heirs Foundation, Blair Mountain Historical Organization, Heartwood, Appalachian Voices, Potomac Valley Audubon Society, Trees for the Planet and Patagonia, Inc.

Vivian Stockman
Sept 19, 1999

There is no question that those organizations and individual volunteers who supported the Walk for the Mountains deserve no end of accolades for their efforts and expenses. Special thanks are due to OVEC and its staff who took the lead in organizing and follow-through. Ed. +

Editor:

Here's a re-working of WV's state song, with apologies to Mrs. Ellen King (the author of the original.)

WEST VIRGINIA HILLS (updated)

Oh, the West Virginia hills!
How much longer will they stand?
The coal barons want to destroy them
for the wealth beneath this land-
Is it any wonder then,
That my heart with sorrow fills,
As they destroy the place I love-
Those West Virginia hills.

(Chorus)

Oh, the hills, beautiful hills,
How I'll miss those West Virginia Hills!
Is there nothing that can stop them
from removing the mountaintops,
before there are no West Virginia hills?

Oh, the West Virginia hills!
Where my childhood hours were passed,
Will they still be here tomorrow,
or is their fate already cast?
Men in suits make promises
of a future they can't fulfill-

Those who try to justify what they do
to our West Virginia hills.

(Repeat Chorus)

Oh, the West Virginia hills!
How much longer can we stand
To watch the politicians line their pockets
as they lick their master's hand?
I read the news each day
and my heart with anger fills!
Judas still collects his silver
in these West Virginia hills!

(Repeat Chorus)

Oh, the West Virginia hills!
Your people bid you adieu.
They have to pack their things and leave
to find jobs and start anew.
You know they won't come back
to a place that lies dead and still-
Soon this will be just a graveyard
for those West Virginia Hills!

(Repeat Chorus)

I know it's a little late, but you might ask one of the musicians that will be performing at "Music for the Millenium" if they would be interested in throwing this in.

Mini-bio (if you're interested or can use it):
I was born in Madison, Boone County, WV, in 1961, the son of a coal miner. I spent my childhood, for all practical purposes, in the woods of that area. While my oldest brother followed in my father's footsteps and into the mines, I was sent away to college when I reached that age when such decisions have to be made. I married a local girl, my high school sweetheart, and now we make our home in Huntington, along with our 2-1/2-yr-old daughter, Olivia.

I worry that one day soon I will lose the ability to show her where I grew up. Every time I return to my childhood home a little more of it is gone.

Thanks for listening,

Greg Casto (recent addition to your ranks)
Sept. 5, 1999

Greg, I have no doubt that the Earl Of Elkview, George Daugherty, would be interested in your lyrics! Editor. +

Editor:

I participated in the historical march for Blair Mountain in 1999. This march was to honor all traditional miners past and present. And a chance for me to especially honor my own father, Oliver "Cob" Thompson. He was a miner from age 14 until his death only four months after his retirement.

The first thing I would like to stress is the great sorrow I came to feel for the men that threw eggs, tomatoes, and spit on us while ironically shouting that we were taking food from their tables. Sympathy was not my first reaction. Fear was the first reaction as my peaceful group was swarmed with men and one woman that proceeded to shove, kick, and trip an eighty-four year old elected official. These "men" shoved Ken Hechler and the women in our group from person to person like school bullies. I, myself, was not

assaulted, but the shocking events around me were a nightmare. A man wearing expensive sunglasses and dress clothes moved in front of me telling me that he was a Christian and very involved in his church. I asked him to stop this assault, but before he could answer, I was surrounded by other men. One of these men asked "where the hell are you from?" I yelled "Whitesville, where about six years ago a scab coal company moved into our community and laid off about eight-hundred union workers." His reply was "I don't give a damn!" The police arrived and calmed things down.

On Tuesday, August 31st, the same bullies followed our group of marchers from place to place, stopping at every wide spot in the road, spitting and throwing things again. Until that day I hated those people. At the last wide spot along the road, I understood the reason for their violent behavior.

Four men in dress shirts, ties and dress slacks stood on the outskirts of the crowd that day. There were not miners. They stood behind their pawns, smiling proudly amid the trouble they had incited. I understood then. These men in suits used the fear and anger that those poor miners felt. Used fear and anger for their own personal gain, to have their dirty work done for them, and all for the love of money. Coal companies in the past have an still continue to scare and bully the miners and their families.

Can only a few see that more machines equals huge profits for the company, and in less than half the time? All of this is West Virginia's loss. Meanwhile, they still haven't given an answer as to what will become of these men and their families (all of our families) when in the decades to come the coal is gone and they have to leave West Virginia. What will happen to all of us "Mountain"-eers then? Please register and vote in the next election! Keep a close eye upon what your elected officials are doing, and for whom they are doing it. Please exercise your rights as citizens before you lose them!

Julia Bonds September 9, 1999
Whitesville, WV

Yes, and the leadership at the top levels in West Virginia is also conducive to inciting unthinking miners to resort to violence. Gov. Underwood laid the supposed "bomb plant" in the Capitol Complex at the feet of the Methodists for their resolution the week before against mountain top removal which supposedly triggered off some kind of screwball reaction. Is it not more rational to see where Underwood and other coal lackeys, if not actually being involved in the planning of the march disruption, were still giving a silent assent to such kinds of behavior? Ed. +

Dear Highlands Conservancy:

This summer my wife, Mary Ann, and I climbed Mt. St. Helens. On reaching the top, I thought, only God should be able to remove a mountain top, and even God doesn't have the chutzpah to remove the whole thing.

John Yevuta
New Martinsville, WV +

Calendar

October 8 thru 10 - Fall Review in Morgantown.

October 12 - Forest Forum with Dr. Jim Kotcon, WVU Dept. of Plant & Soil Science, and Cindy Huber, USFS, as speakers. Topic: Air Pollution Impacts on West Virginia's Forests. Held in the Elkins Public Library at 7 PM. Public encouraged to attend. For questions call 637-4082.

October 16 & 17 - Dolly Sods North day hike (Saturday only) and backpack (Saturday and Sunday), sponsored by WVHC. Contact Peter Shoenfeld, (301) 587-6197, peter@cais.net; or Dave Saville, (304) 284-9548, daves@labyrinth.net.

October 21 thru 24 - Peace and Global Issues - the 12th Annual Conference of Concerned Philosophers for Peace. Radford University. Global issues include the nations state system in relation to peace, civil disobedience, environmental, militarism, economics, women's, media, governance, citizenship, Poverty, human spirituality, weapons for mass destruction, violence, population pressures. Keynote Speaker: John Cairns, Jr. who will speak on "World Peace and Global Sustainability." For information E-mail gmartin@runet.edu phone (540) 831-5213.

October 22 and 23 - National Environmental Careers Conference, Hartford Civic Center, Hartford, CT. Sponsored by Environmental Careers Organization. Contact website www.eco.org for more information and to register.

October 23 - Economic assessment workshop at the Moorefield Middle School from 8:30 to 4 PM. The workshop is free and lunch will be served free of charge. The workshop is geared towards having participants learn how to interpret economic data and use it in their daily lives. For those of us in the green world it will help to understand the economic pressures and details that drive local/state decisions. For more information contact Margaret Janes at (304) 897-6048.

October 30 (Sat.) - Workshop, "From the River to the Radio," for local watershed groups sponsored by the West Virginia Rivers Coalition. To be held at the USDA Soil and Water Conservation Research Lab, Beckley, from 9 AM to 5 PM. The training will feature Jeff Simmons (environmental science professor at West Virginia Wesleyan College) and Jeff Young (reporter with West Virginia Public Radio). Simmons will lead a session on how to design and implement a basic water quality testing program for activists in local watershed groups, and Young will give a talk on how to best take the watershed group's message from such work to the media and the public. Cost is \$10/person; registration deadline for the workshop is Friday, October 23. For more information or to register, call Nathan Fetty at WVRC, (304) 637-7201, or send e-mail to nfetty@neumedia.net.

November 19 thru 21 - the Religious Campaign for Forest Conservation's national meeting will be held at Blackwater Falls State Park. There will be featured speakers, plus sessions around planning actions for the year 2000 campaign to get logging banned on public lands in all 50 states. Contact Bob Marshall for more info at (304) 372-7501. ✦



Controversy Concerning West Virginia Spruce

Some Experts Say They Are "Healthy"

By Don Gasper

There is a concern about our high elevation spruce forests. Many observers have noted dead and dying Red Spruce on the Monongahela National Forest for some time. This is a review of three papers dealing with them.

In 1984 a U.S. Forest Service Plant Pathologist, Manfred Mielke, observed this phenomenon and reviewed air photos of the National Forest area where most of West Virginia's spruce are found. He found Spruce on 110,685 acres within the National Forest boundary, and of this, he found light mortality in 86.5%; 5.7% was moderate, and 1.5% was heavy. (There was a last 6.5%, mostly on Cheat and Shavers Mountain, that did not photograph well.) He figured only 7% of the stands had a greater mortality than 10%. However 40% of the number of Spruce were dead or declining.

"Declining," an important value, was based primarily on crown vigor. It means a huge number, 1/3 of our Spruce volume is dead or declining. He notes Red Spruce should live 300 or more years. This then 80 year old forest is young.

This confirmed losses here that had been noted elsewhere throughout the Appalachians in other studies done at the time. In this study the dominant tallest spruce and those just below were counted, and most of the decline in the crowns was noted in those now crowded in the shade. This is normal forest dynamics, many foresters will tell you. This death is "natural" and not inordinately high at this stage and crowded circumstance. The explanations remain controversial today.¹

In 1996 Pennsylvania State foresters and the US Forest Service (USFS) sampled West Virginia Spruce again, and now our spruce were

found to be in "good health." Only dominant and co-dominant trees were examined, again mostly for crown condition. These were not the declining smaller Spruce of the air-photo survey 10 years earlier. The recent study looked at only 351 trees (9 trees from each of 39 randomly selected stands) from Davis to Marlinton - about 1/3 as large a number as the earlier air photo study. Trees up to 261 years old were sampled. Only 10% appeared to be 10% declining. Of the 351 trees 63.8% of the trees were under 10% defoliated. The overall health was good.

The paper notes spruce drop shaded needles. They found the denser the stand and then the tighter the canopy closure, the more defoliation. They note these spruce had at least 4 year old needles, and that healthy spruce hold them from 4 to 7 years. The nutrient content of the needles, or soil acidity or nutrients, or lack of them, did not correlate with crown vigor.

Only 12 of the 39 stands sampled were not on "rough, stony land." This extensive land class is "strewn with rock fragments and massive boulders, with little or no soil in evidence - the supply of plant nutrients, particularly phosphorus, are extremely limited." The other 12 are mostly soils "from sandstones or non-calcareous shales, with some bed rock near the surface and are generally limited in plant nutrients." They remark most nutrients are bound and recycled in the trees themselves and the forest floor. The soil had a pH of 4.05 (range 3.3 - 5.4). The forest floor humus had a pH of 3.64 (range 3.1 to 5.1). The available calcium, magnesium and potassium (exchange) were low.

Now a third study in 1998 in sampling spruce near Spruce Knob found, "annual growth

rates in mature forests have stabilized after a period of decline that began around 1960 and lasted for 20-25 years.² The West Virginia Red Spruce forest occurs primarily above 3,000 feet, and was estimated to be less than 50,000 acres about 1990. They report they aged canopy dominant Spruce in 1995.

These authors recount that slowed tree growth was found in West Virginia and western Virginia spruce by Adams and Stephenson writing in 1985. [Dr. Stephenson is now at Fairmont State.] They had found very little growth from 1965 to 1981. The authors further recount this was found in other locations in the Appalachians and in New England too. They report also that air and ground surveys in the 1986 report by Mielke found declining and dead trees made up 33% of the total Red Spruce volume.

There was no evidence of past fires in this study near Spruce Knob. The stand ages were from 86 to 125 years old. The ages of the majority of the trees clustered tightly around the stand means, indicated all were started by a major disturbance. Back calculations place their logging at 1887 and 1908. The earlier disturbance in 1869 may predate the logging, escaping because the trees were small, being leveled by a previous disturbance. Growth in all stands was similar up to the 1930s, when growth rates began a period of increase that peaked in the late 1950s. In 1960 growth entered a general decline. From the peak 1959 rate they declined from 55 to 69%. Then in the mid-1980s growth rates increased and have been level or increasing since to 1994. They are levels that occurred in the 1930 to 1940 era.³

GASPER concl. on page 20



ON TAP -- MEETINGS OF Annual Membership Board of Directors

The annual West Virginia Highlands Conservancy membership meeting will be held Sunday, October 10, 1999 at Dave Saville's home in Morgantown, at 9:30 AM. The quarterly Board of Directors meeting will follow the membership meeting.

The membership meeting is open to Conservancy members. The scheduled business is the election of five board members for the two year terms running from October, 1999 to October, 2001.

A committee has been appointed to make nominations for the Board seats at this membership meeting. Nominations may be presented from the floor, as well. Persons to be nominated should be asked about serving and agree to serve before being nominated.

The quarterly Board of Directors meeting is open to all members, but only board members may make motions and vote on official business.

All members are welcome to attend, to offer comments, to serve on committees and to offer assistance with ongoing issues, or ask for Conservancy support on other issues. Conservancy support on new issue(s) of concern is usually proportional to the energy individual members are able to contribute in support of the issues.

GASPER from page 19 concl.

These foresters note thinning of these dense stands should result in more growth and vigor for the remainder.

My comments follow:

These foresters have suggested thinning, and it might work in a limited way for a while. The "thinning" surely should not include a harvest where nutrients are trucked off-site. We must learn what percent of the total available nutrients would be trucked off. If it were 1/20, could this small amount be tolerated when the total nutrient capital is so small and continually declining by leaching by acid rain. A harvest should not be suggested with so little understanding of this unique, so valued, and acid perturbed ecosystem. During this 50-80 year history it has received perhaps 5 tons of Acid Rain per acre. Also we must add to this history that in the last 10 to 20

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The 12th Annual Conference of Concerned Philosophers for Peace Peace and Global Issues

Radford University, October 21 thru 24, 1999

Peace issues encompass the entire planet and a number of global issues go beyond the scope of any nation state to handle.

Thinking about peace is becoming increasingly planetary and requires thoughtful struggle with a variety of global issues.

Keynote Speaker: Professor John Cairns, Jr.

Distinguished Professor Emeritus in Environmental Biology at Virginia Tech He will speak on "World Peace and Global Responsibility." His speech will be on Friday, Oct 22.

For further information contact Dr. Glen Martin, Department of Philosophy and Religious Studies, Radford University, Box 6943, Radford, VA 24142. E-mail: gmartin@runet.edu. Phone (540) 831-5213. Fax: (540) 831-5929.

years the spruce ecosystem generally has become "nitrogen saturated" in a period of growth with reduced microbial activity complicating further our understanding of forest workings.

The fact that spruce on such infertile sites are in dense stands and making good growth is surprising in view of its ecosystem assault by Acid Rain. (Recent regrowth has been reported elsewhere in the Appalachians also.) No one knows why. We may have been gifted somehow with more hope for recovery if the environmental outrage of Acid Rain were removed from mountain tops throughout the Eastern Forest.

¹ From Main to Georgia spruce mortality and decline has been observed. Regional acid rain has been suggested as a cause and recently how this would cause ecosystem stress has been elucidated. Very little growth of Spruce throughout its range had been found. Decline generally follows slow growth.

² Slowed tree growth occurred from Maine to Georgia within 5 years of 1965. This was 1/5 of the growth in the 1950s. As the authors of this third paper note slow growth persisted for 20 years. Now they report resumed growth, but is this forest health in light of increasing acidification and toxic aluminum in soil water and the leaching away of nutrients? The authors are Jim Hornbeck and Jim Kochenderfer, who is from The Fernow Experimental Forest at Parsons, W.V.

³ There is a history of acid rain that parallels and interacts with this tree growth history. This correlation has been pointed out by the USFS Researchers who knew of early work by Lunt in the 1920s. Since then, in the 1950s they found the spruce roots he studied had moved closer to the surface, in response to nutrients made available from the forest floor by the first of the regional acid rain. It was a pool of nutrients that were depleted generally throughout the Eastern Forest in the 1960s and growth throughout was found to nearly stop for 20 years. Being shallower, they were exposed more to drought, freezing and wind dislodgement. ❖