United States
Environmental Protection
Agency

EPA Region 3
Philadelphia, PA

Volume II

Catherine Holtkamp, Congregation of Divine Providence

Congregation of Divine Providence
Office of Peace and Justice
1000 St. Anne Drive
Melbourne, KY 41059
August 14, 2003

RECD AUG 18 2003

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I oppose mountaintop removal and valley fills and any change in the buffer zone rule. I am very concerned and, yes, angry, that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and for the area in which they live. It seems that the ordinary citizens of this country no longer count! 1-9 1-10

Big business -- in this case -- the coal companies have priority. Is this what our country is coming to?

Whereas, 724 miles of streams across the Central Appalachian region were buried by valley fills between 1985 and 2001 and another 1200 miles of streams have already been impacted by valley fills; 5-7-2

Whereas, selenium, a highly toxic metalloid, was found only in coalfield streams below valley fills killing aquatic life forms there; 5-5-2

Whereas, a total of 2,200 square miles of Appalachian forests will be eliminated by 2012 by large-scale mining operations; 7-5-2

Whereas without additional environment restrictions, mountaintop removal mining will destroy an additional 600 square miles of land and 1000 miles of streams in the next decade;

How can this shameful report be ignored?

Three alternatives are included in the EIS report. I reject all of these. None of these will protect our water or our communities. 1-5

For justice,

Catherine M. Holtkamp

Catherine M. Holtkamp
Coordinator - Office of Peace and Justice

Renee Hoyos, Tennessee Clean Water Network

TCWN
TENNESSEE CLEAN WATER NETWORK
706 Walnut St., Suite 200 Knoxville, Tennessee 37902
office: 865/522-7007 fax: 865/329-2422 website: www.tcwn.org

January 5, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

The Tennessee Clean Water Network (TCWN) appreciates the opportunity to submit the following comments on the draft programmatic Environmental Impact Statement (EIS) on mountaintop removal coal mining. TCWN is a statewide, nonprofit organization dedicated solely to protecting, restoring, and enhancing Tennessee's waters and the communities that depend on them.

TCWN is opposed to any changes that would weaken the laws and regulations that protect our rivers and streams from the effects of mountaintop mining and valley fills. As a result, we are opposed to each of the alternatives evaluated in the May 29, 2003 draft EIS. 1-10

Mountaintop removal mining is a highly destructive practice where entire mountaintops are blasted away to reach thin seams of coal underneath, and millions of tons of rock and soil are dumped into adjacent valleys. The practice destroys forests, leaves a barren landscape, and buries the headwaters of rivers, which are essential to maintaining healthy, dynamic river systems. Headwater streams provide crucial linkages between upstream watersheds and tributaries and downstream rivers and lakes. The natural processes that occur in intact headwater streams affect the quantity and quality of water and the timing of water availability in rivers, lakes, and groundwater. These processes, which are integral to functioning ecosystems, are also crucial to human well-being. The upper reaches of steam networks are important for purifying water, storing water, recharging groundwater, and reducing the intensity and frequency of flooding. 1-9

The draft EIS contains indisputable evidence of the devastating and irreversible environmental harm caused by mountaintop mining. The administration's own studies have detailed the devastation, including:

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal
- direct impacts to streams would be greatly lessened by reducing the size of the valley fills where mining wastes are dumped on top of streams
- the total of past, present and estimated future forest losses is 1.4 million acres

Protecting, Restoring, and Enhancing Tennessee's Waters and the Communities that Depend on Them

- even if hardwood forests can be reestablished in mined areas, which is unproven and unlikely, there will be a drastically different ecosystem from pre-mining forest conditions for generations, if not thousands of years
- without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining.

Other agency studies also show that mountaintop mining contributes to flooding disasters in mountain communities. 1-9

Unfortunately, each of the alternatives in the draft EIS ignores the findings of these studies and the very purpose of the EIS – to find ways to minimize, to the maximum extent practical, the environmental consequences of mountaintop mining. The draft EIS does not examine a single alternative that would reduce these impacts. The draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations. 1-5

The "preferred alternative" would clearly increase the damage from mountaintop mining by eliminating the Surface Mining Control and Reclamation Act's buffer zone rule that prohibits mining activities that disturb any area within 100 feet of larger streams, eliminating the current limit on using nationwide permits to approve valley fills in West Virginia that are larger than 250 acres, and giving the Office of Surface Mining a significant new role in Clean Water Act permitting for mountaintop mining (a role it does not have under current law). 1-10

Our environmental laws require, and the citizens of the region deserve, a full evaluation of ways to reduce the unacceptable impacts of mountaintop mining. TCWN urges EPA to abandon the "preferred alternative" and to reevaluate a full range of options that will minimize the enormous environmental and economic damage caused by mountaintop mining and valley fills. 1-5

Thank you for your consideration.

Sincerely,

Renée Victoria Hoyos
Executive Director

Protecting, Restoring, and Enhancing Tennessee's Waters and the Communities that Depend on Them

Penn
Arts & Sciences

Center for Folklore and Ethnography
Graduate Program in Folklore and Folklife
391 Logan Hall
249 South 36th Street
Philadelphia, PA 19104-6304
Tel 215.898.7352 Fax 215.573.2231

REC'D JAN 0 7 2004

December 28, 2003

John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I want to thank you and the members of the EIS steering committee for the opportunity to comment on the Draft Programmatic Environmental Impact Statement on Mountaintop Mining/Valley Fills in Appalachia, and for extending the review period until January 6, 2004. My comments are based on more than a decade of ethnographic and historical research which I have conducted with communities in the southern West Virginia coalfields. What I have seen of mountaintop removal and valley fill mining in the course of this research fills me with consternation on many fronts, but in this letter I want to focus on critical cultural concerns raised by the draft EIS, since that is where my professional expertise lies. To contextualize my comments on particular points in the draft EIS, I want to begin by clarifying what is at stake culturally in the maintenance of stream buffer zones. 10-2-5

Stream Buffer Zones as Cultural Commons

Protected by U.S. law as the property of the citizens of the United States, the headwaters in the mountains form a part of the commons that unites us as citizens. The

1963-2003 Celebrating Forty Years of Folklore and Folklife at the
UNIVERSITY *of* PENNSYLVANIA

commons of air and water circulate through all of us, and through food so do the commons of soil and biodiversity. It is a matter of public health to safeguard these public goods. But just as critically, these material goods anchor and unite us collectively as citizens with a stake in these goods, not just as consumers of coal. At the national level, these streams ground and strengthen us as a polity. At the local level, the headwaters are integral to the historical and cultural landscapes that nurture community life. As a democratic polity it is in our best interest to sustain the resources that strengthen local presence in the national public sphere.

To appreciate just one of the ways in which headwaters uniquely form local cultural resources, consider the names for these headwaters. Nearly every wrinkle in the mountains bears a local name, which serves as a reminder of genealogical, historical, and ecological processes: Walnut Hollow, Mill Hollow, Schoolhouse Hollow, Sugar Camp Hollow, Seng Branch, Bear Hollow, Dickens Hollow, and so forth. These names, which are household words in local conversations, situate people as citizens of the mountains who rely on the headwaters for a variety of services, which I'll consider below. Fostering shared identity, these public goods, the headwaters, are cultural resources, and they are also civic resources. They represent generations of human investment in making the mountains a place to live and work, and this investment needs to be weighed against the investment that coal companies have made, without benefit of public debate, in giant machinery that is ill-fitted to mountain ecologies.

10-2-5

Defining Cultural Resources

In this regard, I would argue for expanding the definition of cultural resources in your glossary. Cultural resources are those which nurture collective identity, serving as touchstones to a shared history and a continually emerging sense of shared destiny. Cultural resources provide communities with a sense of continuity despite ongoing ruptures (including natural death, economic crisis, war, ecological disaster), and they provide communities with the visibility they need to represent themselves in larger political bodies. In this vein, mountains serve as cultural resources for citizens living in the mountains, since mountains form the medium through which communities develop a shared identity (hence the state's motto: "Mountaineers are always free.*)*. Another word for such a public good is "commons." Participants in the commons share understandings of the importance of the public goods of streams and biodiversity and their relationship to the plateau topography of Central Appalachia. Land and mineral companies defend their right to destroy these goods over the rights of their neighbors to enjoy the economic and cultural benefits provided by these goods. These land and mineral companies have placed themselves and their coal beyond the reach of the public commons for the purpose of controlling the enclosure they have created around coal. Because the enclosure of coal and the commons of the mountains occupy the same physical space, and because both are arguably of value to the public good, safeguarding the stream buffer zone is a critical cultural and political issue: the stream buffer zone anchors the citizens of the United States within the enclosures of coal. The stream buffer zone is the commons that the

10-2-5

citizens of the United States are being asked to allow industry to privatize in the draft EIS.

The Gulf between Description of Resources and Alternatives in the Draft EIS

Although in the descriptive portions of the EIS you begin to address what is culturally and ecologically at stake with this buffer zone, you do not provide an alternative that safeguards the headwaters. You describe the mixed mesophytic forest and the cove hardwoods as world class resources, you register the extraordinary diversity of invertebrates and amphibians, and you explicitly express amazement at the diversity of birds. But while you begin to address what is culturally significant, you have not put it together in a way that clarifies the true cost of the loss of these public goods in relation to the very short term gains of mountaintop mining. You do make it clear that the forest and its species thrive on the cove and valley topography that mountaintop mining will destroy and replace with landform complexes. You make it clear that this loss is irreversible and that it will have profound cultural impacts. But you have not specified in the alternatives a future that involves sustaining mountains and culture together. You have not articulated a process for any kind of alternative development, as such alternatives are prescribed in the National Environmental Policy Act (NEPA).

1-13

Cultural Implications of the Language of the Draft EIS

Language, a cultural resource, is a powerful tool for shaping reality. When, for example, you speak in the EIS of "the mountaintop mining region," you appear to favor industry by conceding the region to them. With that in mind, I want to question other uses of language in the Draft EIS, which ultimately support the goals of the coal industry over other options which are supposed to be under consideration. The glossary exemplifies

10-2-5

my point. Most of the terms in the glossary support the impression that Central Appalachia is the mountaintop mining region, not, for instance, the ginseng region or the mixed mesophytic region, which would be equally valid designations. In its favor, the glossary does give us a sense of the components of the "land form complexes" that the coal industry proposes to install on the Central Appalachian plateaus. These landform complexes will be created through processes like "backfilling," "boxcutting," "cast blasting," and "wing dumping." Using "dozers," "draglines," "front-end loaders," "hydraulic excavators," "hydroseeders," "panscrapers," and "dump equipment" the coal industry will create "blanket drains," "core drains" (aka "flumes"), "center ditches," "benches," "fill structures", "commercial woodland," "groin ditches," "perimeter ditches," "sedimentation ponds," "support areas" and "development areas." In the process they will have to deal with "bulking factors" "fugitive dust," "probable hydrologic consequences." And so forth.

10-2-5

What the glossary does not do, and should do, is provide us with a full sense of the alternative which motivates so much resistance to mountaintop removal. There are a few terms that offer us a glimpse of the commons beyond coal – such as "acquifer," "biological diversity," "cultural landscape," "headwaters," and "waters of the United States." But the inclusion of landscape features crucial to mountain life, and vulnerable to mountaintop mining, would help to disclose more fully the staggering cultural and social costs of this form of mining. Such terms might include landscape features at risk (i.e. "knob," "gap," "crossing," "swale," "cove," "drain," "bear wallow," "side hollow," "main hollow," "rich bench," "newground," "poplar flats," "check dam") as well as ecological concepts expressed in the vocabulary of the local commons ("den tree," "bee

tree," "berry patch," "ramp patch"). The uses of these terms in everyday life in the mountains may not be familiar to many readers, and would therefore be important to include. More terms and some definitions can be found on the USGS website, as well as on the *Tending the Commons* website: http://memory.loc.gov/ammem/cmnshtml/map.html. by clicking on such features as they have been mapped at the headwaters of the Big Coal River.

The Ideas of Development, Productivity, and Tradition in the Draft EIS

In addition to these landscape terms, there are three other terms that appear throughout the draft EIS that I would like to address: "development," "productivity," and "non-traditional forest products." Since you do not define "development" in the glossary, I would like to suggest a definition drawn from Jane Jacobs' *The Nature of Economies:* development means "differentiation emerging from generality." Having differentiated to the point that, as you observe, a number of headwaters boast endemic species of invertebrates, the central Appalachian plateaus would seem to be one of the most highly developed regions in the planet's temperate zone. In this view, mountaintop removal represents a profound form of *un*development. In contrast to the standardization imposed by mountaintop removal mining, the level of development achieved through evolutionary differentiation takes specific forms of cultural expression as well.

10-2-5

As the writers of the EIS express amazement at the diversity of avifauna, I must confess that as an ethnographer, I find the varieties of human expression in the mountains to be equally amazing and worthy of respect. The folklorist Lynwood Montell observed that nearly every hollow in Eastern Kentucky has developed its own varieties of beans, which my work in West Virginia corroborates. I am amazed at the variety of

forms taken by homemade implements for cultivating the soil. In fact, I have yet to encounter two ginseng hoes that look exactly alike. The differentiation in these forms is a tiny outcropping of thousands of years of human interaction with this landscape, interactions that have yielded the knowledge and skills necessary to make the mountains productive of human community life and values. I have not found in the draft EIS any use of the word "productivity" which recognizes this accomplishment. If you do not recognize this kind of productivity, how can you provide for it?

10-2-5

Finally, I am startled to see activities that have been practiced in the mountains for thousands of years associated in the draft EIS with *non-traditional forest products.* "Non-timber forest products," a term with which I am familiar, usefully draws our attention to the renewable productivity of forests, and to values not measurable in board feet. Making trees productive of honey, syrup, bark, fruit, and nuts, and making the mixed mesophytic understory productive is a human project that has developed through transmission of traditional knowledge over many generations. Unless I am missing something, terming these practices "non-traditional" seems to trivialize them. What then, are *traditional* forest products, and how have you arrived at this particular distinction?

10-2-4

Cultural Services Provided by Mountains and Headwaters

Last spring, in an effort to devise methods for cultural planning in mountain communities faced with mountaintop removal and valley fills, the Center for Folklore and Ethnography conducted a workshop with community organizers in Pipestem, West Virginia. In this workshop, entitled "Getting Out of the Overburden and Onto the Map: Cultural Assessment in the Mountaintop Removal Permitting Process" (March 2003), we asked those assembled to identify the cultural amenities provided by the mountains which

10-2-5

they would like to see considered in the draft Environmental Impact Statement. The question prompted comments quite similar to the comments that your team gathered at its public meetings. While these comments are amply registered in the descriptive portions of the draft EIS, I don't find them to be adequately addressed in the alternatives. In an effort to translate these comments into a useful planning tool, we tested them against a graphic of the Mixed Mesophytic Seasonal Round, which can be viewed online at:

http://memory.loc.gov/ammem/cmnshtml/season1.html

http://memory.loc.gov/ammem/cmnshtml/season2.html

This graphic, which shows the annual round of hunting, gathering, gardening, fishing, recreation, community events, and employment opportunities, represents a key cultural asset that is grounded in specific sites and species in the mixed mesophytic forest and cultural landscapes of the central Appalachian Plateau. This seasonal round of activities takes people all over the mountains. It is a structure whereby people continually carry the past forward into the future. This structure and its vital cultural practices cannot be protected through conventional means of historic preservation. The seasonal round embodies thousands of years of transmission of human knowledge and skills. What is the effect of mountaintop removal and valley fill mining on this seasonal round of cultural and economic practice? The draft EIS vaguely suggests that the loss of the commons in which this seasonal round is practiced could be ameliorated through the creation of public parks. But how can public parks compensate for the loss of the knowledge and skills that are intimately connected to particular spaces? It appears that you have not done a study of the economic, social, and ecological value of the seasonal round, and of the

10-2-5

possibility of development centered around these community based practices. Why is that the case?

Wild Ginseng as a Species of Concern

While all of the resources that support the seasonal round (nut trees, named streams, understory species like ramps, ginseng, goldenseal, landscape features like knobs, gaps, coves, swags, drains, benches, and so forth) are of value, one linchpin of the seasonal round warrants far more attention than you have given it in this report, and that is wild ginseng (*panax quinquefolia*). A 1996 study by Appalachia Science in the Public Interest observed that for wild and virtually wild ginseng the Chinese market alone is 12 billion dollars annually. To provide a basis for comparison, according to the West Virginia Mining and Reclamation Association in Charleston, West Virginia, the coal industry meets a direct annual payroll of around one billion dollars for the state of West Virginia. More than half of the U.S. annual export of wild ginseng comes from the coal-bearing plateaus. The reason for this, as the West Virginia ginseng officer told me in a telephone conversation, are cultural. He said that people in the coalfields grow up digging roots and gathering herbs. Protecting ginseng, then, is another way to protect culture. Wild ginseng is monitored under the terms of the Convention on International Trade in Endangered species because of its extraordinary economic value and its very limited habitat. Have you looked into the question of how much of this habitat will be destroyed by mountaintop removal coal mining? Has the steering committee calculated the dollar value of wild ginseng, a renewable resource, over the hundreds of years it could take to regenerate that habitat? For more information on the wild ginseng region, see http://www.folkculture.org/pdfs/ffc_essay_11.pdf

10-2-5

Additional References

Lastly, may I recommend the following items for your bibliography?

Appalachia Science in the Public Interest. 1996. "Ginseng in Appalachia," *ASPI Technical Series* 38. Mt. Vernon, Kentucky: Appalachia-Science in the Public Interest.

Couto, Richard. 1999. *Making Democracy Work Better: Mediating Structures, Social Capital, and the Democratic Prospect*. Chapel Hill: University of North Carolina Press.

(To balance the discussion of the "fatalism" which the draft EIS describes as a cultural attribute. There is, as you know, a long history of community-based resistance, apart from the history of the unions, which you do address. See also Fisher, 1993, and Gaventa, 1980)

Fisher, Stephen. Ed. 1993. *Fighting Back in Appalachia: Traditions of Resistance and Change*. Philadelphia: Temple University Press.

Gaventa, John. 1980. *Power and Powerlessness: Quiescence and Rebellion in an Appalachian Valley*. Urbana: University of Illinois Press.

Hufford, Mary. Ed. 1994. *Conserving Culture: A New Discourse on Heritage*. Urbana: University of Illinois Press. (Re: alternatives to bottom-line economics in conserving cultural, natural, and economic resources)

Jacobs, Jane. 2000. *The Nature of Economies*. New York: Random House.

Salstrom, Paul. 1994. *Appalachia's Path to Dependency: Rethinking a Region's Economic History 1730-1940*. Lexington: University Press of Kentucky. (To complicate the claim made in several places in the draft EIS that coal has driven the region's settlement and development)

Smith, Russell. 1929. *Tree Crops: A Permanent Agriculture*. New York: Harcourt Brace (Re: an alternative kind of forestry, more suited to the biological diversity of the region than the even-aged, monocultural stands comprising the commercial forests of post-mining land-use).

Thank you again for the opportunity to comment, and I hope my comments will be useful to you in preparing the final draft of the EIS.

Sincerely,

Mary Hufford, Director
Center for Folklore and Ethnography
University of Pennsylvania
Philadelphia, PA 19104

10-2-5

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:18 AM -----

Carolyn Johnson <ccc6@mindspring.com> 01/06/2004 04:06 PM
Please respond to Carolyn Johnson

To: R3 Mountaintop@EPA
cc:
Subject: commentsdeis.doc

Citizens Coal Council

Working together for clean water, safe homes and a healthy environment
www.citizenscoalcouncil.org

1705 S. Pearl St., #5
110 Maryland NE, #408
Denver, CO 80210
Washington D.C. 20002
303-722-9119 fax: 303-722-8338 202-544-6120
fax:202-544-7164
ccc6@mindspring.com
citzcoal@starpower.net

January 5, 2004

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103
Fax: 215-814-2783
Email: mountaintop.r3@epa.gov

Subject: Comments on the Draft Programmatic EIS on Mountaintop Removal/Valley Fills in Appalachia

Dear Mr. Forren,

I am submitting these comments on behalf of the Citizens Coal Council, a national federation of 45 grassroots groups located in 24 coal-producing states and Native American Nations who work together for environmental justice that protects their communities and resources. The Council has individual members and eight member groups based in Kentucky, Tennessee, Virginia and West Virginia as well as thousands of additional individual members across the country.

Our members live in the coalfields next to mountaintop removal mines and valley fills. They have banded together to survive the daily onslaughts from these unsafe, outlaw coal operations: blasting, polluted water, floods, destroyed water supplies, landslides, monster coal trucks, unsafe roads, damaged homes and property, disappearing forests, fish and wildlife, monoculture economies, deteriorating public services and sinking property values, and corrupt or spineless public officials. Our members did not volunteer to have their homes and homelands transformed into a national sacrifice zone for cheap energy and private profit and they are fighting back. 10-4-2

Good Autopsies Don't Bring Back the Dead or Prevent Future Deaths.

The 5,000-page draft EIS (DEIS) extensively quantifies the irreversible widespread environmental harm already caused by mountaintop removal mining/valley fills and estimates the future harm of these practices to the communities and ecosystems:

- Eliminating 2,200 square miles of forests
- Destroying 1,000 miles of streams and another 600 square miles of land in the next 10 years.
- Adversely impacting 244 vertebrate wildlife species in West Virginia alone. 4-2

Overall, the scientific studies are good autopsies that do inform the public and decision-makers of the death and destruction caused by mountaintop removal and valley fill operations. However, the National Environmental Policy Act (NEPA) requires and the courts have long upheld that agencies can't skate by their responsibilities with autopsies that describe harms in an environmental impact statement. The agencies must analyze a range of actions that will prevent and lessen harm.

A Sham and a Shame

Not one of the alternatives nor the DEIS as a whole complies with the letter or spirit of NEPA. Citizens can read diligently for days searching for a needle of action in this 5000-page haystack of words but will find nothing. The analyses of the three grossly misnamed "action" alternatives contain not one action to prevent the enormous environmental damage so extensively documented elsewhere in the study. Stripped of the code words and gobbledygook, these alternatives consist of weakening the existing rules and signaling these mining operations to charge ahead and continue the devastation. The "no action" alternative continues the existing failure of the federal and state agencies to deny permits for damaging operations, to take effective enforcement actions against those mine operators that cause the devastation and to shut down those who persist. 1-5

The DEIS at page II.D-8 devotes one paragraph to the alternative to prohibit valley fills and dismisses it, claiming that the Clean Water Act's 404 program is not amenable to being used to prohibit fills. Regardless of any merits of that claim – and we believe them to be close to zero – the DEIS authors have failed to produce any examination of how ending fills and mountaintop removal could be achieved under a well-thought out alternative of active enforcement of existing appropriate regulations and the adoption of new or amended policies and regulations that would be necessary to achieve the prohibition. This failure drips with hypocrisy and is further evidence of the heavy hand of Deputy Secretary Steven Griles, former coal industry lobbyist, who assured the coal companies the DEIS would not threaten their destructive practices: 13-3-4

"But on August 4, 2001–three days after signing his recusal letter–he gave a speech before the West Virginia Coal Association, reassuring members that 'we will fix the federal rules very soon on water and spoil placement.' Two months later, Griles sent a letter to the EOA and other agencies drafting the EIS, complaining that they were not doing enough to safeguard the future of mountaintop removal and instructing them to 'focus on centralizing and streamlining coal mine permitting.' ("Dirty Secrets" by Osha Gray Davidson, September/October 2003 issue of Mother Jones Magazine.)

For the alternatives they did choose, these same authors describe at length proposed changes in agency coordination practices and policies and rolling back a major protective regulation such as SMCRA's buffer zone protection rule. Failure to carefully and professionally analyze this protection alternative – one that could reasonably result in the most environmental protection for huge swaths of Appalachian forests, streams and the tens of thousands of Appalachian residents who value and use them – makes the entire DEIS process a sham and a shameful waste of the public's trust and tax dollars.

"Frankly My Dear, I Don't Give a Damn." (Rhett Butler to Scarlet O'Hara in Gone With The Wind)

The authors of the DEIS make much ado about "enhancing" and shuffling "coordination processes" among the OSM, Corps of Engineers and state mining agencies. "Coordination processes" are no substitute for action that prevents environmental destruction. Since its creation in the Surface Mining Control and Reclamation Act of 1977, OSM has had the legal authority and responsibility to enforce the law and prevent extensive environmental damages like those described in the DEIS, but from 1981 onward a long succession of agency directors and Interior Secretaries – regardless of political party – did not enforce the law, and the same is true for most state regulatory agencies. The Army Corps of Engineers has long seen its mission as clearing the way for wetlands destruction, straightening rivers, and overseeing boondoggle public works projects and shady contractors (Halliburton's oil gouging in Iraq only being the latest). For the last 15 years, EPA's approach to coal mining issues has been "nobody here but us chickens," and this once-proud agency is now known as the Environmental Polluter's Arm. 1-10

These failures cannot be explained away by poor inter-agency coordination, lack of coordination, or confusing rules. Agency leaders have lacked the political will to take enforcement actions, reject permit applications and carry out their respective laws. They don't care enough to serve the public. We members of the public frankly don't give a damn about the number and type of meetings, letters and consultations that agencies hold. We want positive action to prevent this destruction and will not accept any substitute.

Recommendations.

We urge the five sponsoring agencies – Corps of Engineers, EPA, Fish & Wildlife Service, Office of Surface Mining, and West Virginia Department of Environmental Protection – to issue a new DEIS that:

1. Includes the new Preventive Alternative as the preferred alternative. This new alternative would logically follow from the scientific studies already done for this draft and would lay out a 1-8

comprehensive plan for preventing new mountaintop removal/valley fill operations and stop the existing ones within 5 years or the by the expiration of the current mining permit, whichever date occurs first.

2. Names, describes and analyzes the violations, past and present, of each mountaintop removal/valley fill operation since 1985.

3. Lists, describes and analyzes the permitting and enforcement failures of the Corps, EPA, OSM and WVDEP.

4. Amends the economic impacts analysis and lists the campaign donations from each mining, supply and coal-buying company by name to each state and federal candidate since 1985. (Much of this information is available from the Center for Responsible Politics, and we will be glad to recommend other sources.)

5. Tells the truth and respects the public. Removes code words and euphemisms such as "mountaintop mining" for mountaintop removal, "harmonizing regulations" for weakening and rolling back the rules, "confusion" about the stream buffer zone rule in place of "we don't and won't enforce it."

Sincerely,

1-8

Alpha Natural Resources

John P. Jones
Environmental Compliance Manager
406 West Main Street
Abingdon, Virginia 24210
Phone: (276) 619-4443
jpjones@alphanr.com

January 6, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103
mountaintop.r3@epa.gov

Re: Comments on the Mountaintop Mining/Valley Fill Draft Environmental Impact Statement

Dear Mr. Forren:

On behalf of Alpha Natural Resources, LLC (Alpha), I am submitting these comments resulting from the review of the above referenced Draft Programmatic Environmental Impact Statement (MTM/VF EIS) document.

Alpha is a privately held company formed in August 2002 and headquartered in Abingdon, Virginia. In just a little more than a year, Alpha's affiliates have acquired coal mines and processing plants in Virginia from subsidiaries of Pittston Coal Company; coal mines and processing plants in Kentucky, Virginia and West Virginia from El Paso (Coastal); coal mines and processing plants in Colorado, Kentucky, Pennsylvania, and West Virginia from AMCI and its subsidiaries; and recently acquired coal mines and a processing plant in Pennsylvania from Mears Enterprises.

Alpha and its subsidiaries employ about 2,300 people, produce approximately twenty-two million tons of steam and metallurgical coal and will sell approximately six million tons of third party coal annually. Together, Alpha's subsidiaries make up the largest producer of coal in Virginia and the fifth largest in the East.

Alpha's subsidiaries are active members of the Virginia Coal Association, the Kentucky Coal Association, the West Virginia Coal Association, and several other similar coal industry-related organizations. We support and concur with the joint coal industry technical comments prepared by a consortium of these professional organizations, which is being provided to EPA.

Alpha, on behalf of its subsidiaries, would like to take this opportunity to go on the record in support of Action Alternative No. 3 and wishes to submit the following comments:

- We strongly feel that the vast majority of surface mining operations should qualify for the Nationwide 21 (NW 21) Permit process, while generally only the very largest operations, with multiple large-volume valley fills and a potential for significant adverse impacts, would require Individual Permits (IP).
- The appropriate SMCRA enhancements should be made to allow for the SMRCA regulatory agency to take the lead role in a joint application type permitting process.
- To help clear up the quagmire that the 404 permit review process has become, all future 404 permit application reviews, whether IP or NW 21, should occur concurrently with the SMCRA permit review.
- Current mitigation requirements should be amended, through a multi-agency effort, to allow credits for remining, reclaiming areas mined prior to 1977 and left in an unreclaimed status (AML), and other innovative reclamation projects that result in wildlife habitat enhancement whether aquatic or terrestrial. 1-13
- Due to the current dire status of the surety industry, and the difficulty in obtaining surety bonds, the SMCRA required bonds should be sufficient to cover mitigation activities.
- The Eastern Kentucky Stream Assessment Protocol has never undergone an adequate peer review, nor has it followed the administrative procedure process. The Protocol should be merely a recommended method of stream quality determination, and not a requirement, until such time as it can be professionally reviewed, and the public has had a chance to make comments upon its merit.

Regardless of the final Alternative chosen, adverse impacts to the public, our aquatic and terrestrial resources, as well as to our mining industry should be minimized. Thank you in advance for giving your favorable attention to our concerns.

Respectfully submitted,

John P. Jones

John P. Jones
Environmental Compliance Manager

A Statement by the Catholic Conference of Kentucky on Mountain Top Removal

December 10, 2002

Dear Friends in Christ,

We write you on the occasion of your ecumenical gathering for a "Prayer on the Mountain" in Letcher County, Kentucky. Our other obligations prevent us from traveling to the mountains to be with you today, but we send our prayers of support and words of encouragement.

We know from people ministering in Appalachia and media reports about the environmental and human devastation caused by the abusive strip mine practice known as "mountain top removal." This practice can damage the foundations of homes and destroys the wells of people living in nearby communities. It dumps millions of tons of earth and rock into valleys ruining springs and head waters of creeks essential to the animal and plant life for miles downstream. It can destroy graveyards and home places and alters communities reverenced by generations of families who trace their ties to that land. We understand that McRoberts itself has suffered five devastating floods in 18 months, and many other areas of Appalachia have faced similar destruction.

As we reflect on Sacred Scripture we believe that the care of creation represents a spiritual act. We remember that God finished the work of creation and "found it very good" (Gen. 1:31.) Then God put humanity in the Garden of Eden, a symbol of the whole world, "to cultivate and care for it" (Gen. 2:15.) Creation reflects the beauty of God and humanity becomes a co-gardener with God. 1-9

In addition, since the world belongs to all, decisions about the world's use must be determined by a concern for the common good of the whole human family. Pope John Paul II joining his voice with a growing chorus of ethical people throughout the world proclaims the right to a safe environment must eventually be included in an updated U.N. Charter of Human Rights. That your "Prayer on a Mountain" takes place on December 10, International Human Rights Day, symbolically connects the respect for the earth with the protection of our human community.

We pray that society will produce its necessary goods and services without destroying God's gift of creation. Unfortunately, the practice of economics frequently exploits both the land and the workers in a rush for quick profits. Society must reject the false dichotomy of jobs versus the environment and creatively find ways allowing workers to earn their livelihoods while respecting creation. May God shed blessings on you as you pray for the restoration of creation and the uplift of your communities.

Yours in Christ Jesus,

✝Thomas C. Kelly, O.P., Archbishop of Louisville ✝John J. McRaith, Bishop of Owensboro

✝ Roger J. Foys, Bishop of Covington Reverend Robert J. Niegberding, Lexington Administrator

The Catholic Conference of Kentucky is the public policy agency of the state's four Roman Catholic Dioceses.
This statement is also available on the CCK website – www.ccky.org

Kentuckians For The Commonwealth
P.O. Box 1450 London, Kentucky 40743 606-878-2161

Facsimile

January 6, 2003

REC'D JAN 0 6 2

TO: Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

FR: Kentuckians for the Commonwealth
Phone (606) 878 2161
Fax (606) 878 5714

RE: EIS Programmatic Draft Statement

PP: 14 total

Included are some individuals comments regarding the Mountaintop Mining/Valley Fills in Appalachia Draft Programmatic Environmental Impact Statement. Some of these may be copies.

CONTINUE FROM PREVIOUS PAGE

Ms. Colleen Unroe
211 K.C. East Dr. Apt. 5
London, KY 40741

Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 0 6 2004

Dear Mr. Forren,

I am a resident of Laurel County, Kentucky, which located in the coalfields. I know people who have been directly affected by this type and other devastating forms of coal mining, and I find it horrendous that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. 1-9

According to the administration's draft Environmental Impact Statement (EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations. This is simply unacceptable.

I disagree with the Bush administration's "preferred alternative" for addressing the enormous problems caused by mountaintop removal coal mining, which weakens existing environmental protections. The draft EIS proposes streamlining the permitting process, allowing mountaintop removal and associated valley fills to continue at an accelerated rate. The draft EIS also suggests doing away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams unless it can be proven that streams will not be harmed. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining. 1-5

The Bush administration's "preferred alternative" ignores these and hundreds of other scientific facts contained in the EIS studies. In light of these facts, the Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. Ultimately, the future of our environment, economy, and communities is at stake. We need policies and regulations that protect our land and our people, while bolstering sustainable economic development and sustainable energy sources.

Sincerely,

Colleen Unroe

Robert M. Hensley, D.V.M.

1025 Creekside Lane Nicholasville, KY 40356

859 271-2920

19 August 2003

Mr. John Forren
1650 Arch St.
Philadelphia, PA 19103

Dear Sir:

I am opposed to the concept and practice of disturbing the mountain top topography to more "efficiently" and "economically" gain access to the coal seams thereunder. This approach to mining may be good for the bottom line of the coal companies, but it most certainly is not for the adjacent environment or its inhabitants.;

Compounding this unconscionable technique is the disruption, if not destruction, of contiguous waterways with the overburden or spoil. This practice flies in the face of existing laws which attempt to preserve, if not improve, the water quality in these areas. The proposed changes would reduce the 100 foot buffer zone which attempts to protect existing streams and would exacerbate conditions of many already degraded by mining activity. 1-9

In sum, we must not continue the history of abuse of these areas simply for additional profit. It is time that the quality of life for the inhabitants and their environment be given a higher priority than the profit margins of the corporations causing this destruction.

Sincerely,

Robert M. Hensley, D.V.M.

cc:KFTC

416 Logan Street
Frankfort, KY 40601
August 23, 2003

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I am writing against the recommendations in the U.S. government's EIS report on mountaintop removal for the mining of coal. The report itself documents the great destructiveness of this practice for water quality and forest ecosystems, but none of the three alternatives that it proposes will reverse this destruction. Instead, they weaken existing regulations, including the important stream buffer zone. The recommendations can only serve the short-term interest of the coal industry: not the immediate and long-term needs of the people of Appalachia for clean water, sustainable jobs, sustainable development and secure homes. 1-5

For administrators far removed from the mining, this issue may appear abstract. I live a few blocks from the Kentucky River, which flows brown from erosion from destructive mining practices at its headwaters, while the people of Appalachia see their land literally blasted away beneath them. Appalachia has the potential for becoming a national center for tourism and wilderness recreation, but this possibility is being stolen from us and all future generations. 1-9

I urge the E.P.A. to reject the EIS recommendations as a contradiction to the evidence gathered by its own reports.

Sincerely,

Louise Chawla

Louise Chawla

910 Sunset Road
Ann Arbor, Michigan 48103
August 25, 2003

Mr. John Forren, U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, Pa 19103

Dear Sir,

I am writing to comment on the unfortunate, vague and inadequate recommendations made for action in response to EIS report regarding mountaintop removal mining and valley fills.

I am a graduate of Berea College and my mother was a Kentuckian. She would not only be shocked and dismayed (as I am also) at the wreckage of her beautiful state but would want to protest the cavalier way in which the current administration is "responding" to an EIS report documenting the extreme damage occurring at the hands of the coal companies in Kentucky. 1-5

Your report specifies weak and vague alternatives to correct the continuing irreversible damage being done to mountain streams and terrain. Why? Evidence in the report clearly indicated a need for a more specific and preventive role for our government.

It all boils down to who lives and loves Kentucky most.:

Is it the coal companies with their blind need for profits in a state that can do without this kind of destructive coal mining?

Is it President Bush who has already a long track record of assaults against the environment to profit big business?

Is it lawmakers in Frankfort, whose knees are too weak to behave like they should in opposing the continual destruction of their state for political gain?

You answer.

Sincerely yours,

Mary Corsi Kelley

Mary Corsi Kelley

cc. Jim Bunning
Mitch McConnell

Mr. Eugene Mullins
Box 2370 Puncheon Rd.
Kite, KY 41828

Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I live in Knott County in Eastern Kentucky in the community of Puncheon. CONSOL of Kentucky Inc. as well as other Coal Companies has been mining in Puncheon for more than five years now. The coal trucks running up and down this small county road have destroyed the quality of life in this community.

But it's the valley fills from the strip mines that nearly washed out the more than 20 homes that exist on Puncheon back in June of this year. I have lived on Puncheon for over fifty years and I had never seen the creek flood at the head of Puncheon Branch at the bridge in front of my home-place, not during the floods of 1957 or of 1963. During the thunderstorm back in June of this year CONSOL's valley fill on permit number 860-0390 slipped several hundred feet causing mud and rocks to fill the creek below. CONSOL's valley fills pose a direct threat to the more than 20 homes that exist on Puncheon Road. 17-1-2

Valley fills like this exist all over eastern Kentucky. Time and gravity will cause them all to slip. Coal Companies are not following the law when they build these valley fills. Each fill is suppose to consist of eighty percent durable material. In my mind durable material is large rocks, not dirt and shale. These valley fills are also suppose to be compacted to certain specifications. It is expensive to create a valley fill properly. If the State and Federal Governments aren't going to force Coal Companies to create valley fills properly then the Coal Companies will cut corners to save money and at the same time endanger everyone who lives below these time bombs. Valley fills are routinely larger than they need to be because they are improperly constructed. This is a danger to residents and destroys our streams. 13-2-2

I know first hand the terrible impacts of mountaintop removal and valley fills. I also believe we can build a better future for eastern Kentucky. We can have clean streams and a healthy forest and restore our quality of life. We can create good jobs for our people that don't wreck the environment. And we have to start down a different road now.

Take a stand. Enforce the law. Ban mountaintop removal and valley fills. Stop the coal industry from destroying everything that we value most. Start making choices that will benefit our children and yours.

Sincerely,

Eugene Mullins

August 18, 2003

Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I oppose any changes that would weaken existing laws and regulations that protect clean water. 1-10

The Draft Environmental Impact Statement on mountaintop removal and valley fills ignores the government's own science and economic studies. The EIS recommends "streamlining" the permit process to make it easier for coal companies to level our mountains, bury our streams, and wreck our homeland.

I oppose all three alternatives outlined in the draft EIS. While this proposal may assist in providing cheap energy to this nation, it is short-sighted. The damage that results from mountaintop removal is permanent. 1-5

As the report shows, more than 1,200 miles of headwater streams have already been buried or destroyed. Thousands of acres of forest land has been permanently wiped out.

The American people that live in this area have their lives and property damaged/destroyed because of this mining method.

The negative impacts of mountaintop removal and valley fills are unacceptable and immoral.

I oppose any changes that would weaken existing laws and regulations that protect clean water. I also support aggressive environment of the present laws with severed prison terms for those that violate the law. 1-10

Sincerely,

Earl R. Wilson
1113 W. Francis Ave
Clarksville, IN 47129

Aug 15, 2003

Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

As a resident of Lexington, in eastern Kentucky, I have watched the mountaintop removal controversy with great interest. It s hard to believe the scale of destruction that is going on with our beautiful mountains. I have met with coalfield residents many times, especially after the coal slurry disaster in Martin County, Kentucky, that was caused by mountaintop removal mining.

I have talked with people whose water wells have been destroyed, whose foundations have been cracked, who have had to sue coal companies for dust from preparation plants, whose children go to bed at night with their clothes on when it rains, for fear of flooding.

It seems to me we are destroying the future economy of the region. Clean water will be as important to future generations as oil is today. The water wars are coming, as has been predicted by Fortune and other business magazines. This is why we see multi-national conglomerate corporations like RWE, Vivendi, and Suez swallowing up American water companies like American Water Works of Vorhis, NJ. These big companies know that the potential profits are huge in the future for those with a monopoly on a reliable source of clean water.

We have clean water in abundance here in Appalachia, and it can be our future economic salvation. Or we can stupidly bury our mountain streams underneath mining waste, and contaminate our free-flowing Appalachian streams with blackwater spills and toxic runoff from mountaintop removal sites. 1-9

It s hard to believe that the Bush administration, which prides itself on being so industry-friendly, can be so short-sighted as to destroy, permanently, one of our greatest economic and natural resources: clean water. More than 1,200 miles of our headwater streams have been buried or destroyed by valley fills.

But that s only the beginning of the economic stupidity. Mountaintop removal also destroys valuable hardwood forests, and has already had a negative impact on the timber industry in West Virginia. Almost 7 percent of our forests have been - or will soon be - leveled by mountaintop removal. West Virginia Division of Forestry Director Bill Maxey quit his job in protest of mountaintop removal. That s jobs being lost!

Flooding in Appalachian communities is increasingly common and severe. Who pays? FEMA — i.eThe taxpayer! And homeowners insurance goes up every time there is another disaster. The coal companies externalize their costs onto the public.

It doesn't have to be this way. There are laws on the books to protect clean water, public safety and the environment. It is perfectly clear that mountaintop removal and valley fills are a violation of the federal Clean Water Act and the Surface Mining Control and Reclamation Act. These practices should be banned. The coal industry must not be allowed to destroy our homeland.

The draft Environmental Impact Statement on mountaintop removal and valley fills is a dangerous gift from the Bush administration to the coal industry. Instead of recommending ways to *stop* the destruction, the EIS proposes ways to make it easier for coal companies to level our mountains, bury our streams, and wreck our homeland. This is shameful and wrong. 1-10

I know first hand the terrible impacts of mountaintop removal and valley fills. I also believe we can build a better future for eastern Kentucky. We can have clean streams and a healthy forest and restore our quality of life. We can create good jobs for our people that don't wreck the environment. And we have to start down a different road now.

Take a stand. Enforce the law. Ban mountaintop removal and valley fills. Stop the coal industry from destroying everything that we value most. Start making choices that will benefit our children and yours. 1-9

Sincerely,

David S. Cooper
608 Allen Ct.
Lexington KY 40505

Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I live in Harlan County, Kentucky at the headwaters of the Cumberland River. We have had nearly a hundred years of coal mining in our community. We have very little clean water. We once had plenty.

The draft environmental impact statement on mountaintop removal published recently by the Bush administration is a slap in the face of everyone who needs water to survive. It is a malicious, poisonous, shortsighted, misanthropic, hateful, greedy, anti-democratic document.

I pray that the people who put it before the public will live long enough to see the errors of their ways and correct them. I pray that the people who wrote this document never have to drink the greasy black water that comes out of the spigots of people in the American coalfields. I pray that they never have to pull their sleeping children out of a home flooded as a result of rain on poorly reclaimed strip jobs. 1-9

My message to President Bush and all the formulators and enforcers of his self-serving, callous, cynical, dangerous energy policy is this: I support none of the proposed alternatives in your environmental impact statement. Enforce SMCRA the way it was written. Enforce the Clean Water Act the way it was written. 1-5

Good people don,t have to get sick and die just so this country can have electricity. We can do better. Pursue alternatives.

Elected officials are supposed to look out for the interests of all the people--not just their fraternity brothers, family friends, and corporate cronies. Quit acting like gangsters and start acting like statesmen. Or pursue another line of work.

Robert Gipe
PO Box 1394
Harlan KY 40831

August 15, 2003

Mr. John Forren
U.S. Environmental Protection Agency (2ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I am writing to express my outrage and disappointment in the Draft Environmental Impact Statement on mountaintop removal and valley fills. This document is an affront to intelligent people. It ignores the government s own science and economic studies. Instead of finding ways to stop the destruction, the EIS recommends streamlining the permit process to make it easier for coal companies to level our mountains, bury our streams and wreck our homeland.

I oppose all three alternatives outlined in the draft EIS. None of these options will protect our water or shape a better for Kentucky. Instead of these weak alternatives, the federal government should ban the use of mountaintop removal and valley fills forever. It is time to fully enforce existing laws designed to protect clean water and the environment. 1-5

I oppose any changes that would weaken existing laws and regulations that protect clean water. Do not eliminate the stream buffer zone rule (30 CFR 816.57), a regulation that prohibits mining within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. Likewise, do not make it easier for coal companies to seek and obtain permits for valley fills. These proposals are dangerous to the coal industry and should be rejected. 1-10

Growing up in eastern Kentucky, I know full well the damage that results from strip mining and mountaintop removal. Thousands of residents have seen good clean water go bad. Floods have devastated homes and families. Habitat is forever destroyed for much of our wild game once mountaintop removal and valley fills occur. Again, please reject these proposals.

Sincerely,

Dr. Roger C. Noe, Professor

John Forren
U.S. EPA (3ES30)
1650Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I oppose mountaintop removal and valley fills and any change in the buffer zone rule. I am disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protection for people and the environment. Scientific studies document the widespread and irreversible damage the coal industry is doing to our state and region. Mountain top removal ignores the public's demand for clean water, healthy environment and safe communities. 1-9 1-10

Please accept the wisdom of those who live in these areas and the scientific studies that support these correct insights. How many coal company CEO's live in Harlan County, Kentucky?

Thank you for considering the good of the people in the coal areas

Sincerely,

Gayle Brabec
1707 New Orleans Ct.
Lexington, KY 40505

Cc: President Bush

Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

January 6, 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Re: Draft programmatic Environmental Impact Statement on mountaintop coal mining and associated valley fills in Appalachia

Mr. Forren –

Thank you for the opportunity to offer comments on behalf of the Union of Concerned Scientists (UCS) on the Draft programmatic Environmental Impact Statement (draft EIS) on mountaintop coal mining and associated valley fills in Appalachia. Established in 1969, UCS is an independent nonprofit alliance of 65,000 committed citizens and leading scientists across the country. We augment rigorous scientific analysis with innovative thinking and committed citizen advocacy to build a cleaner, healthier environment and a safer world. The UCS Clean Energy Program focuses on developing a sustainable energy system—one that is affordable, uses non-depletable resources, and does not degrade natural systems or public health.

While UCS appreciates the considerable interagency effort that went in to developing the draft EIS, we must express our alarm in the Agency's decision to exclude consideration of any alternatives for more strict limits on mountaintop mining and valley fill, and instead largely ignore sound science by supporting a "preferred alternative" that weakens existing environmental protections, and ultimately eases the permitting process for coal mining companies.

There is strong empirical evidence in the over 30 technical studies conducted in association with the draft EIS that indicate the pervasive and permanent impact to the environment, and to the public health and culture of communities near mountaintop mining and valley fill operations. For example, the data show that over one thousand miles of headwater streams have been destroyed or degraded, including 724 miles of streams that have been buried forever under huge piles of waste. The report also states that it is difficult if not impossible to reconstruct free flowing streams on or adjacent to mined sites. Current reclamation efforts are simply converting what had been biologically diverse native hardwood forested mountaintops to grassland plateaus. Downstream of mountaintop removal operations, stream chemistry monitoring efforts show significant 1-10

www.ucsusa.org | Two Brattle Square · Cambridge, MA 02238-9105 · TEL: 617.547.5552 · FAX: 617.864.9405
1707 H Street, NW · Suite 600 · Washington, DC 20006-3962 · TEL: 202.223.6133 · FAX: 202.223.6162
2397 Shattuck Avenue · Suite 203 · Berkeley, CA 94704-1567 · TEL: 510.843.1872 · FAX: 510.843.3785

increases in conductivity, hardness, sulfate, and selenium, which is highly toxic to aquatic life at relatively low concentrations.

Despite the considerable evidence of the environmental and social harm caused by mountaintop removal, the draft EIS does not include any meaningful actions for reducing its impact. There is no consideration for restrictions on the size of valley fills, nor are there any limits proposed on the number of acres of forest and other ecosystems that can be destroyed. There is also no consideration of new safeguards for the communities of people that value and depend on the region's ecological heritage.

According to the economic analysis prepared for the draft EIS in 2001 by Hill & Associates, even the most severe restriction on valley fills studied in their report (a 35-acre limit on the size of valley fills) would not cause serious economic harm. The report found that a 35-acre valley fill limit would raise the price of coal by only $1 per ton and would have virtually no impact on the cost of electricity. A separate EPA draft study from April 2002 concluded that the 35-acre restriction would have very little average annual impact on statewide employment (less than 0.3% of total year 2000 employment) in Kentucky and West Virginia. 1-5

Rather than focusing on alternatives that strengthen restrictions on mountaintop removal and valley fill, the Agency's "preferred alternative" is to weaken existing environmental laws, and streamline the permitting process by shifting approval and administrative responsibilities among government agencies. The environmental and economic studies prepared for the draft EIS do not lend sufficient evidence to warrant support for this proposed "preferred alternative" as a means for limiting the impact of mountaintop coal mining.

The preliminary version of the draft EIS considered several alternatives that would limit the size of mountaintop removal valley fills. These alternatives represented more effective strategies for reducing the widespread impacts of mountaintop mining. They also more appropriately reflected the cumulative impact study that analyzed the effects on aquatic and terrestrial ecosystems of several different scenarios for future mountaintop removal mining. Yet, all alternatives for restrictions on valley fills were excluded in the draft EIS finally released. We urge the EPA to include these alternatives in the final EIS.

These alternatives should be considered for their own environmental merits. In addition, we note that the administration has been increasingly advocating the use of advanced coal technologies, in conjunction with carbon sequestration, as a potential carbon-free resource for electricity and hydrogen production. In this context, coal will compete with other carbon-free alternatives, such as the increased use of wind, solar and other renewable energy resources. To the extent the administration hopes to win support from the environmental community and public for advanced coal technologies as a potential climate solution, it is critical that the administration require progress in reducing the upstream environmental impacts of coal mining, to place coal on a more level playing field with renewable alternatives over the life cycle of these resources. Permitting hidden 1-7

subsidies for coal by way of allowing increased upstream impacts and external environmental costs can only diminish the likelihood of public support for advanced coal technologies.

We thank you for the opportunity to comment, and respectfully request the EPA to consider the recommendations proposed above.

Respectfully submitted,

//s//

Kevin Knobloch
President
Union of Concerned Scientists

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:39 AM -----

Steve Krichbaum
<loki4@rica.net>
01/06/2004 05:37 PM

To: R3 Mountaintop@EPA
cc:
Subject: DEIS Comments

Wild Virginia
P.O. Box 1891
Charlottesville, VA 22903 phone: 434-971-1553

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103
mountaintop.r3@epa.gov

Dear Mr. Forren:

Mountaintop removal mining is a highly destructive practice where entire mountaintops are blasted away to reach thin seams of coal underneath, and millions of tons of rock and soil are dumped into adjacent valleys. The practice destroys forests, leaves a barren landscape, and buries the headwater streams, which are essential to maintaining healthy, dynamic river systems. 1-9

This DEIS does not achieve the fundamental purpose of its preparation: _to minimize, to the maximum extent practicable, the adverse environmental effects . . . by mountaintop mining operations_ (see 64 FR 5778). By so doing, this document additionally violates the settlement agreement of Bragg v. Robertson. Nor does this DEIS comply with the fundamental purposes of the NEPA (see 42 USC 4321). 4-2

The mountains and streams of the analysis area are vitally important habitat for numerous species and populations of amphibians, reptiles, mammals, birds, mollusks, annelids, arthropods and other invertebrates. Severe direct, indirect, and cumulative harmful impacts to these populations are ignored or discounted in the DEIS. 9-2-2

The examined alternatives do NOT _enhance environmental protection_ or minimize the adverse effects from MTM/VF._ (ES-4) Instead, the EIS process here has been obviously result-driven and politicized so as to flagrantly facilitate the permitting of more MTM/VF operations (through so-called _improved efficiency [and] collaboration_). See _Preferred Alternative_. The bureaucratic wheel-greasing on view here ignores clear harms and does not meaningfully protect the public or our environment from the avoidable adverse impacts of MTM/VF. Instead of protecting us and improving the present destructive situation, the preferred so-called

improved regulatory process would foreseeably result in even more destruction of streams, valleys, flora, fauna, and human quality of life

in the Central Appalachians.

4-2

The range of the alternatives examined in detail is improperly limited. Such constricted consideration does not _more thoroughly address impacts to our environment_, nor does it _better inform the public_ and _provide more meaningful participation_ (ES-10). To claim otherwise (as the ES does) is clearly unreasonable.

To comply with the NEPA and provide a legal basis for well-informed and well-reasoned decision-making, other alternatives need to be examined in

detail. Our environmental laws require, and the citizens of the region deserve, a full evaluation of ways to reduce the unacceptable impacts of

mountaintop mining. The agency needs to abandon the "preferred alternative" and to reevaluate a full range of options that will minimize the enormous environmental and economic damage caused by mountaintop mining and valley fills.

4-2

Alternatives need to be considered in detail that:
Prohibit the use of valley fills.
Label all of the region_s streams as _high value_.
Set an upper limit on the percentage, number and/or length of streams allowed to be impacted.
Restricting the size of fills to 35 acres, 14 acres (the median size of intermittent streams), or less.
Restricting fills to certain types of streams (e.g., ephemeral).

1-7

There is enough _science_ to clearly indicate that burying streams under ton of waste and rubble is irreversibly and/or significantly harmful to biota, water quality, hydrology, or beneficial uses. The DEIS ignores various direct, indirect, and cumulative impacts.

According to the EIS Steering Committee, no scientific basis could be established for arriving at an environmentally _acceptable_ amount of stream loss and it is _difficult if not impossible to reconstruct free flowing streams on or adjacent to mined sites.

It is claimed that _[b]etter stream protection from direct and indirect effects would result_ from the examined alternatives (ES-9). This is a blatant falsehood. Discarding the 100-foot buffer zone rule is proposed.

The rule would be _clarified_ out of existence by saying it does not apply to MTR/VFs. Doing this is NOT an _operation[] designed to avoid and minimize adverse effects_ (id.) This is perhaps the quintessential impropriety that exposes the fundamental insufficiency of the examined alternatives.

1-10

Economic studies show that even the strictest size limits would have minimal impact on jobs, the economy, and electricity prices.

Instead of putting a halt to stream degradation and the on-going violations of the CWA that MTM/VF entails, the preferred alternative would exacerbate and perpetuate this illegal non-compliance. In other words, it is proposed to give even more discretion (through _enhanced coordination_ of regulatory schemes) to the agencies (OSM and COE) that have miserably failed to protect aquatic and terrestrial habitat and biota as well as human communities and water in the past.

1-7

It is even proposed to come up with a manual for the _replacement of aquatic resources_. Aquatic _resources_ need to be protected, NOT replaced (with who knows what).

It is projected that mining operations would eliminate almost 7% of the Appalachian forests (2200 square miles) by 2012. Around 1200 miles of streams have already been damaged by _valley fills_; over 700 miles have already been buried. And these are probably gross underestimations as smaller headwater streams not on topo maps were ignored. Without additional restrictions, MTR mining would destroy an additional 600 square miles of land and 1000 miles of streams in the next decade. Such vast destruction is unconscionable, indefensible, illegal, and unnecessary.

The total of past, present and estimated future forest loss from MTR/VF is over 1.4 million acres. Such forest losses in West Virginia alone have the potential of directly impacting as many as 244 vertebrate wildlife species.

5-7-3

Even if hardwood forests can be reestablished in mined areas, which is unproven and unlikely, there will be a drastically different ecosystem from pre-mining forest conditions for generations, if not thousands of years. The mitigation described and promoted in the DEIS does little to meaningfully address this loss.

It is even proposed to continue _informal consultation_ regarding compliance with the ESA. This is preposterous, and illegal, on its face.

For evaluating actions as significant as MTM/VF, full compliance demands

thorough _formal_ consultation. Instead of positively addressing the significant issue of T&E (and proposed) species, again the desire is simply to _streamline_ the process, with the foreseeable result being less consideration of and protection of ESA listed species and populations. 8-1-1

It is proposed to use some vaguely defined _best-science_ and _science-based methods_ to determine some even more vaguely defined _high quality aquatic populations_ and _high-functioning streams_. Such equivocations are not the clear disclosure required by law, in addition to being loopholes enough to aid and abet significant destruction and degradation. They fatally expose the illegality of the disclosure and decision-making.

We opposed to mountaintop-removal mining and valley fills. These practices bury important headwater streams, destroy biologically rich forest ecosystems, damage drinking-water sources used by millions of people, cause frequent and severe flooding, and wreck the quality of life in Appalachian communities. Leveling mountains and burying streams is wrong and must stop. A reading of the CWA and SMCRA clearly shows that the government is not only allowed, it is required to prohibit MTR/VF. 1-9

We welcome scientific studies that document the widespread and irreversible damage the coal industry is doing to Appalachia. Yet this EIS rejects_without meaningful consideration_specific restrictions on the use of valley fills. These restrictions could be based on size of the fill, cumulative impacts, types of streams affected, or value of the

aquatic and terrestrial resources in the region.

We are opposed to any changes that would weaken the laws and regulations

that protect clean water. In particular, we oppose the proposal to eliminate the stream buffer-zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-10

We do not support Alternative 1, 2, or 3 as described in the DEIS report. None of these options will adequately protect Appalachian forests, wildlife, water, or communities. 1-5

We are opposed to any changes that would weaken the laws and regulations

that protect our rivers and streams from the effects of mountaintop mining and valley fills. As a result, we are opposed to each of the action alternatives evaluated in the Draft Environmental Impact Statement. 1-10

The DEIS contains indisputable evidence of the devastating and irreversible environmental harm caused by mountaintop mining. Other agency studies also show that mountaintop mining contributes to flooding

disasters in mountain communities. Unfortunately, each of the alternatives in the draft EIS ignores various findings of these studies and the very purpose of the EIS - to find ways to minimize, to the maximum extent practical, the environmental consequences of mountaintop mining. The "preferred alternative" would clearly increase the damage from mountaintop mining by eliminating the current limit on using nationwide permits to approve valley fills in West Virginia that are larger than 250 acres, and giving the Office of Surface Mining a significant new role in Clean Water Act permitting for mountaintop mining (a role it does not have under current law). These actions would clearly result in increased environmental harm. Mountain removal mining destroys the scenic beauty of the Central Appalachians, which in turns significantly harms local and regional economies. Our environmental laws require, and the citizens of the region deserve, a full evaluation of ways to reduce the unacceptable impacts of mountaintop mining. I urge you to abandon the "preferred alternative" and to reevaluate a full range of options that will minimize the enormous environmental and economic damage caused by mountaintop mining and valley fills. 1-5

These comments are submitted for the organization as well as for the writer personally. Thank you for your consideration.

Sincerely,
Steven Krichbaum
Wild Virginia Conservation Director
412 Carter Street
Staunton, VA 24401 phone: 540-886-1584
January 6, 2004

The League of Women Voters of *Tennessee*
Frances Lamberts, Natural Resources Chair, 119 Ridge Lane, Jonesborough, TN 37659

REC'D JAN 0 9 2004

January 5, 2004

Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Re: Programmatic DEIS: EPA 9-03-R-00013

Dear Mr. Forren:

The following statements from the League of Women Voters of Tennessee are in response to the proposal for new regulation on Mountaintop Mining and Valley Fills (MTM/VF). The proposed regulatory framework for mountaintop mining involves a type of MTM permitted or applied for in Tennessee and the DEIS indicates planned expansion of MTM/VF in our state.

The League commends the agencies for undertaking an EIS process in response to accumulating evidence of harm to water, wildlife species and other natural assets. Within the last two decades (cf. DEIS, I-5) MTM/VF operations have climbed into the hundreds per year and the number of acres affected reach into the thousands per year.

We are in full agreement with the need for environmental-impacts assessment and appreciate the breadth of research studies undertaken or commissioned by the agencies, and comprehensiveness of study results compiled in the DEIS volumes. Natural resources should be managed as interrelated parts of life-supporting ecosystems. Polluting influences should be controlled so that the physical, chemical, and biological integrity of ecosystems is maintained. Comprehensive data and public participation in decisions about natural-resources management are therefore essential components of an EIS. Based on the review of the information compiled, we state our disagreement with some of the interpretations and conclusions reached and the agencies' recommendations in the proposed alternatives for new regulatory guidance (Alternatives 1, 2, and 3). We have especial concerns, and are opposed to choice of Alternative 2 as "preferred" to embody the regulatory safeguards needed for MTM/VF operations. 1-5

The following issues, in particular, are among our principal concerns:

1. **The science on mountaintop mining**

When areas with MTN/VF sites were compared to unmined sites, the scientific research indicated that the mined sites had been adversely affected in terms of water quality, fish and benthic invertebrates and other aquatic life. Additionally, herbaceous vegetation and forest cover were not well established on the MTM/VF sites.

Programmatic DEIS, page 2

The League's conclusions are drawn from the mainstream science research, mostly published in refereed scientific journals, and the technical studies by agency researchers and consulting firms which were compiled within the DEIS documents. To note just one example of the broad research expertise enjoined in the EIS effort, the Executive Summary for Appendix D (Part 3)—aquatic ecosystem assessment—states

> From the spring 1999 through the winter of 2000, U.S. EPA Region 3 personnel facilitated collection of water chemistry, habitat, macroinvertebrate and fish data. ... In addition, data were also collected by three environmental consulting firms, representing four mining companies. The ... U.S. EPA Office of Research and Development assembled [the] data base [and analyzed the data].

However, the DEIS appears to give little or no credence to the bulk of the research findings, whether by prominent academic researchers, or by agency or industry-affiliated researchers such as cited above. The appearance is given of a marginalization of the findings from the bulk of the research, through vague references to "outside" individuals whose studies or opinions "do not necessarily reflect the position.... of the agencies preparing this EIS" (e.g. II.A-2). The agencies make no identification, however, which of the many studies presented, or extensively summarized or referenced in the DEIS or its Appendices volumes the public should consider as reflective of the agencies' position on the documented impacts of MTM/VF mining.

We urge comprehensive and unbiased inclusion of all the research conducted and commissioned for the EIS in evaluation of needed regulatory response to expanded MTM/VF mining. We view the proposed choice of Alternative 2 as contraindicated by the bulk of the research findings.

2. **Harm to the water resources.**

The DEIS and many of the studies presented or summarized in the Appendices indicate significant damage from past MTM/VF practices. Some 1,200 miles of headwater streams have been impacted and 724 stream miles buried (ES-3 ff). The severity of impacts to streams is evident from the findings in many studies. The study reported in Appendix D (p. 51) notes that 5-6-2

> Current mining and reclamation practices result in significant adverse impacts to the first and second order stream ecosystems. At all four sites evaluated, watershed and stream characteristics have been significantly, and in most cases, permanently altered.

In Part 2 of Appendix D, J. Alper of U.S. EPA and J. Stauffer of Pennsylvania State University report

> Total number of fish species and benthic species [are] dramatically lower in mined sites than in unmined sites

6-1-2

and detectable levels of selenium in a watershed with MTM/VF sites as likely cause for the depressed aquatic-species counts. A survey of aquatic insects in small headwater streams,

summarized and included in the same Appendix, found the streams associated with active or recent mining contaminated with sediment loads and the

> benthic macro invertebrate communities at all the test sites ... severely impaired, [the impairment] expressed through a decrease in diversity, a reduction or [even] absence of pollution-sensitive species ... and an increase in pollution-tolerant species.

Headwater streams are critically important to biological health of receiving streams. Further, even perennial streams begin in very small watersheds of a median 41 acres or less (DEIS, ES-4) and, in Appalachia, originate on steep mountain slopes. MTM/VF operations should therefore be expected to create substantial risk potential for runoff and sediment and other pollution in watersheds in this terrain, as indeed the preponderance of research investigations show. 5-6-2

The river systems that traverse the area being considered for expanded MTM/VF mining in Tennessee--the Powell, Clinch and Tennessee, Sequatchie, Obed and Emory rivers--all have varying numbers of tributaries or river segments with currently impaired status for water quality, or have unique scenic or biological assets in other segments (as the Obed and Clinch-Powell rivers). We consider MTM/VF mining in the watersheds of these rivers to create significant additional impediments to restoring water quality and additional risk factors to maintaining the natural assets they now harbor.

3. **Environmental safeguards: Alternative 2**

In several respects, the preferred alternative (Alternative 2) would worsen damaging impacts from MTM/VF activities and weaken current regulatory protections. Most important among these is abrogation of requirement for individual permit review in favor of general use of the nationwide-permit (NWP21) process. Since specification of definitive limits on size of MTM/VF operations or on linear stream impacts is lacking, a presumption of adequacy of permitting under the NWP process seems to us unjustified, especially, as well, given its lack of public-participation opportunity and curtailment of the consulting role of the U.S. Fish and Wildlife Service. Mitigation for water impacts appears to be being required only to an undefined "appropriate level" rather than to categorical standards or defined criteria such as state water laws, e.g. our state's Water Quality Criteria typically contain. We are opposed to infringement on states' authority to protect their resources, through stringent environmental regulation even exceeding national guidelines. We read the mitigation and several other provisions in Alternative 2 as infringement on states' authority in this respect. Alternative 2 appears also to be seeking to "finalize" the stream buffer protection rule (SBZ), which we consider an imperative need to maintain and strengthen. We also consider an affirmative, evaluative and consulting role for agencies like the U.S. Fish and Wildlife Service and the state's Natural Heritage Program as critically important to protection of terrestrial and aquatic biological and botanical assets. We read the proposal as limiting the wildlife agencies' role to one of end-of-process mediation of "unresolved ESA issues" rather than maintaining or strengthening their contribution early on and throughout the evaluation-decision process, to assure that species-impact issues do not arise. We are opposed to any reduction of the 1-10

wildlife agencies' function in permitting of MTM/VF activities.

4. **Harm to the forest resources**

The hardwood forest on mountain slopes, in the Cumberland as well as the far-eastern region, are Tennessee's most important economic and natural asset. They *define* the region, its history and culture. They are synonymous with Tennesseans' and tourists' perception of scenic beauty and of fishing/hunting and other forms of outdoor recreation. They are the very essence of what the citizens feel and the state tourism agencies attempt to market as what "sounds good" about Tennessee.

We believe that this resource will be adversely affected, in potentially very significant and potentially irreversible ways by MTM/VF mining. Several reasons underlie this conclusion.

- One, as is known from research on effects of clearcut logging, herbaceous ground-level plants do not reestablish themselves to their pre-logging diversity and richness, even within a hundred years.
- Second, as various of the reported studies indicate, the complete disruption of soil strata through VTM/VF mining, and reconstitution of a rock + rubble + nutrient amended "topsoil" layer has not been found to be hospitable to re-colonization by trees and herbaceous vegetation. 7-5-2
- Third, issues and research discussed in the DEIS (cf. III.B-12 ff) suggest inherent obstacles to forest reclamation through need to assure such tight soil compaction, post mining, to prevent instability and land-slide risks that root penetration is impeded and effective re-growth of a species-rich forest essentially precluded. As the DEIS makes clear (III.B-9),

> even when the [post mining] reclamation plan calls for the *planting* of trees, excessive compaction of the rooting medium, which severely reduces tree growth, is the norm (emphasis added)

- Fourth, an inherent obstacle is need for expeditious, grass-type vegetation cover to prevent high runoff from mine sites and risk of degradation of streams. This, prompt-cover expediency acts to further depress germination and growth chances for whatever tree and herbaceous-plant seeds might have made it into the post-mining, reconstituted "topsoil" layer. The result, it appears to us, will be inevitable diminishment and fragmentation of our remaining, native hardwood forest, at least for the lifetimes of several generations of Tennesseans.

A study described extensively in Appendix E (S. N. Handel et al., Rutgers University) shows the profound changes in forest composition that has resulted from VTM/FV mining. Its Table 5 of woody species (trees and shrubs) inventoried at undisturbed forest and mined-forest sites shows the 25 natural-forest sites to contain 110 different species while the 25 mined sites contain only 58. The former sites, moreover, contain the trees we familiarly associate with Appalachian forest, such as the hickories and oaks, hemlock and Fraser magnolia and sugar maple, and the vines, small trees

and shrubs which make up their beautiful understory, i.e. rhododendron and mountain laurel, redbud, dogwood and azalea, witch hazel and Dutchman's pipe and others. All these were absent or exceedingly rare on the mined sites. Third, presence and spread of alien species was far lower in the forest versus the mined sites (12 and 41 specimen, respectively) and several of the most aggressive non-native species, such as Japanese honeysuckle, empress tree and Lespediza were present only on the mined sites. This finding is consistent with other data, e.g. from the U.S. Forest Service Western Research Station showing undisturbed forests to act as "bulwark" against invasion of both insect and disease infestations and spread of alien species. These benefits will be lost to the extent that MTM/VF operations further fragment our remaining native forest and their post mining soil impedes forest reclamation. 18-2-2

Dr. Handel's report also indicated adverse impacts on populations of forest birds from the further loss and fragmentation of native forest habitat through MTM/VF mining.

Efforts have been initiated by the Office of Surface Mining, as reported (e.g. III.B-12), to promote post-mining reforestation. This, however, appears to be aimed at production of commercial monoculture pine stands, as suggested by numerous references to the desired, "productive forests" in such terms as

> The forestry reclamation approach basically entails ... planting valuable crop trees for their commercial value to the landowner . . . ; reclamation technique related to white pine productivity ... ; forests economically viable for timber production 19-2-2

In Tennessee, much forest land has already been given over to plantations of pine trees. In the 80s decade alone (*Tennessee Statistical Abstract, 2000*), commercial forest land in pine quadrupled in the Cumberland plateau region and increased more than sevenfold in the eastern region. The ongoing forest conversion has been accompanied by the most damaging pine-bark beetle infestation, in recent years, that the state has ever faced.

Figures compiled by the Tennessee Division of Forestry indicate that southern pine-beetle (SPB) related financial losses to private and commercial forest landowners have exceeded $28 million in three Cumberland Plateau counties alone (Anderson, Campbell, Claiborne), during the 1998-2000 time span. For the state, the timber-loss cost for these three years exceeded $380 million. Private landowners were not the only victims of this financial burden. Costs to the U.S. Forest Service for control measures in the Cherokee National Forest were nearly $60,000 and to the Park Service for control measures in the Big South Fork National Recreation Area $2,670,000. Costs to municipalities, utility districts, and the state transportation agencies also were very high. Cleanup expenses to the Tennessee Department of Transportation, in east Tennessee alone approximated $800,000, and those to two utility districts in that area approximated $756,000. 11-6-2

The total, minimal economic losses to our state from the recent SPB outbreak have been estimated at $445 million.

Pine monoculture stands for the benefit of short-rotation, commercial timber can therefore not be considered an optimal or even desirable form of forest reclamation. Feasibility of pine culture on mining-reclaimed land is also unproven. Both the research findings cited above, and examples which could be cited from our own state (e.g. a barren post-mining area in the Fall Creek watershed) attest to this. Such "forests" have serious ecological shortcomings, additionally to greatly increased insect vulnerability and high cost to the state from insect outbreaks. Their barrenness as habitat for most plant and animal wildlife and their risks to the water resource through intensive chemical-treatment need make them an undesirable substitute for Tennessee's mountain hardwood forests. 19-2-2

5. Public participation

The DEIS indicates that, in addition to three scoping meetings in West Virginia in February 1999, one meeting each was held with citizen groups in West Virginia and Kentucky in December '99 and one each with mining industry groups in these states, in December '99 and January 2000. No public meetings appear to have been held since the Preliminary Draft EIS of 2002--the result of agency response to the issues raised by the public--was changed to the current DEIS. The significant alterations, such as removal of acre limits for valley fills in watersheds of different streams appear to have been made without benefit of citizen participation regarding the issues involved, the decisions made and the regulatory approaches proposed. No public meetings appear to have been held in Tennessee. 3-4

Regarding the current DEIS, availability on the World Wide Web is of some help but access to this resource is not universally available. Three of the Tennessee public libraries closest to the responder, reported to have been "sent copies of [the] Draft Programmatic Environmental Impact Statement on Mountain Mining / Valley Fills in Appalachia" (DEIS VII-1, VII-3) were unaware of having received them. 3-1

We would recommend closer attention by the agencies that copies for public access are, in fact, sent and received and that public-institution recipients have awareness both of their importance and of need of accessibility to the public until closure of the comment period.

We were able to review the documents at the Knoxville offices of the Office of Surface Mining and would like to acknowledge exemplary helpfulness of the staff of this agency in facilitating the review effort. 3-2

Since the agencies' proposed, preferred alternative would, we believe, disallow public participation for most permits through institution of nationwide rather than individual review, we reject Alternative 2 on these grounds. 3-6

Programmatic DEIS, page 7

6. **Recommendations**

The League of Women Voters of Tennessee opposes VTM/VM mining because of its many adverse and severe impacts on the natural resources and, therefore, on our economic health in the longer term. We believe that the current regulatory framework should be strengthened. However, consolidation of permitting procedures as envisioned in the proposed alternatives and elimination of some current provisions such as the SPZ rule in the wake of consolidation will not achieve strengthening but will weaken the current protections. We therefore urge consideration of the following recommendations: 1-9 1-10

In all resource-protection matters regarding mountaintop mining, including especially CWA Section 401 certification, the states' regulatory authority should continue to be upheld.

States' authority to deny valley fills in mountaintop mining operations should be upheld.

Because of their many site-specific characteristics, permits for MTM/VF operations should be approved under the individual rather than the general-permit review process.

States' authority to protect high-quality and Tier III waters, and to maintain their water laws' anti-degradation standard should remain intact.

Valley fills, where permitted, should have acre limits adjusted to size of watersheds or the nature of streams being affected. 1-8

Full evaluative participation and consultative authority of state and federal wildlife agencies should remain intact.

Opportunity for public participation in permit decisions involving MTM/VF activities should not be abridged. Public hearings on the Draft EIS should be conducted in all the four states to which the resultant regulations would apply.

The scientific information on MTM/VF mining should be fully evaluated and all implications of its findings considered in the shaping of regulatory guidance. This is demanded by both the cost to the public in agencies' commissioning or conducting the scientific research, and by sound decision making that protects the public interest in proper management of our natural-resources assets.

We thank you for considering comments from the League of Women Voters.

Sincerely,

Frances Lamberts

Frances Lamberts, Natural Resources Co-Chair, LWV-TN

PC Sharon Fidler, President, League of Women Voters of Tennessee
The Honorable Phil Bredesen, Governor of Tennessee

Scenic America

REC'D JAN 14 2004

January 5, 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

On behalf of the Board of Scenic America, I am writing to urge the Bush Administration to stop mountain-top removal by coal companies. This practice will destroy Appalachia's scenic beauty, will wipe out forests and the critical habitat they contain, bury streams, and threaten communities. 1-9

According to the Administration's draft Environmental Impact Statement (EIS) on mountaintop removal coal mining, the environmental effects of mountain top removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations.

The Administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal mining is to weaken existing environmental protections. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including: 1-5

- over 1200 miles of streams have been damaged or destroyed by mountain top removal;
- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species;

Without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining. In light of these facts, we urge you to consider alternatives that reduce the environmental impacts, including the scenic impacts, of mountaintop removal. Thank you for your consideration of this important issue.

Sincerely yours,

Meg Maguire

Meg Maguire
President

801 Pennsylvania Ave., SE
Suite 300
Washington, DC 20003
Phone (202) 543-6200
Fax (202) 543-9120
E-mail scenic@scenic.org

a member of Earth Share

Please Post

SCENIC SOLUTIONS: DESIGNS and METHODS TO SAVE AMERICA THE BEAUTIFUL

Scenic Solutions, a full-length multi-media CD-ROM, is now available! In partnership with the USDA Natural Resources Conservation Service, and with generous support from the Ittleson Foundation in New York City, **Scenic America** has compiled 45 case studies that represent a variety of innovative designs and methods to save America's cherished natural beauty and distinctive communities.

Scenic America sent out an open call for submissions to a wide range of private firms, universities, businesses, conservation organizations and governments throughout the country. A prestigious selection panel reviewed the submissions and selected the best among them. The winning entries are grouped in four categories.

- **Cities, Towns and Neighborhood Character**
  - Ex: *Design Guidelines for Manchester's Commercial and Historic Districts* – VT
    Salem Riverfront Project- OR
- **Highways, Byways and Context Sensitive Solutions**
  - Ex: *Saving Historic Route 50 – An Innovative Solution* – VA
    The Earth Berm Vegetative Sound Barrier as a Green Alternative in Akron - OH
- **Landscape Character**
  - Ex: *Long-term Visual Effects of Alternative Clear-Cutting Intensities and Patterns* - NH, ME
    Sears- Kay Ruin Day Recreation Area: Preserving a Sense of Discovery in Heritage Interpretation – AZ
- **Tools**
  - Ex: *California Scenic Conservation Initiative: Scenic Resource Mapping Methodology* – CA
    Visual Analyses for Utility Siting – CO

The CD includes video clips, maps and case studies as well as a full color 12-page booklet outlining the project. The cost of ***Scenic Solutions*** is $20.00 + $2.50 S&H. To order please e-mail Janet Jones, jones@scenic.org, or mail the attached order form to:

Scenic America
801 Pennsylvania Ave SE, Suite 300
Washington, DC 20003

***Scenic Solutions* Order Form** – 2003/2004

Name: _____
Street: _____
City: _____ State_____ Zip Code_____

Quantity: _____ Credit Card Info: Visa__ MasterCard __ American Express __ Total: $ _____

Account Number: _____ Exp. Date _____

Signature: _____

SIERRA CLUB
FOUNDED 1892

REC'D JAN 12 2003

January 3, 2003

John Forren
U.S. EPA (3EA30), 1650 Arch Street
Philadelphia, PA 19103

Draft Programmatic Environmental Impact Statement on Mountain Top Mining/Valley Fill (MTM/VF) in the Appalachian region of the eastern United States.

Dear Mr. Forren,

Please accept these comments on behalf of the Upper Cumberland Group of the Tennessee Chapter of the Sierra Club.

We write because of our concerns that the environmental degradation and destruction of mountain forests, valleys and waters that has occurred in West Virginia and Kentucky from this type of mining not be repeated in Tennessee or throughout the Appalachian coalfields. Our experience in looking at the Environmental Justice, NEPA, Endangered Species and Clean Water Act issues connected with the mountaintop mining project at Zeb Mountain in Campbell County Tennessee leaves us to conclude that this type of mining (here called "cross-ridge" mining, but we believe essentially the same as mountaintop removal) cannot be accomplished without devastating destruction of affected streams and creeks and the eco-habitat for many species.

While we understand and agree with the need to address the vital water protection issues involved in this type of mining, the narrow focus of the three alternatives in the DEIS on interaction between the agencies does not account for other possible alternatives - ie. deep mining or no mining. As the U.S. Fish and Wildlife Service said in its September 2002 memo, the three 'action' alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection ... let alone protection that can be quantified or even estimated in advance." 1-5

The No Action alternative assumes that mining - and mountaintop mining - will continue, but looks only at the issues of whether any change should be made in how the agencies (OSM, the Corps and EPA) interact.

Tennessee has a unique situation among the four states involved in the DEIS in that the federal OSM has SMCRA jurisdiction here. This means compliance by OSM with NEPA is required here and that should involve early consultation with the Corps and with EPA - and with the state of Tennessee's Department of Conservation and Environment. This is not being done. The recent permitting of over 2100 acres at Zeb Mountain is a prime example. 1-8

Printed on recycled paper

Because of the difference in the agencies having jurisdiction to administer SMCRA, we do not believe that Tennessee should have been included in this DEIS.[1]

Whatever the jurisdictional vagaries of the different states, it is essential that all permits required to protect water quality be issued, with appropriate public notice, comment and hearings, prior to the issuance of the SMCRA permit and commencement of the mining. Due to the unique quality of the forests and diversity of rare and endangered terrestrial and aquatic species in the region of this DEIS, individual Section 404 permits are required under the Clean Water Act

8-1-2

The DEIS recognizes that the forests, streams and creeks of Appalachia are some of the most biodiverse in the world. Tennessee is one of the last remaining habitats for the federally threatened Indiana bat. Several neotropic birds, such as the Cerulean and Golden warbler, deemed "in need of management" by the State, are finding a last refuge in the forests of the Upper Cumberland region of Tennessee. The Cerulean warbler, in particular, needs deep forests to survive.

The DEIS fails to adequately assess the cumulative impacts to the forests from future stripmining and the cutting in the region that is predicted by the Southern Forest Resource Assessment.

The Southern Appalachian ecoregions are well known for the richness and rarity of their terrestrial and aquatic species. There is no doubt that the heavy sedimentation of the streams involved in a mountaintop mining situation makes those streams inhabitable for many aquatic species. The DEIS correctly recognizes that the Southern Appalachians have one of the richest salamander faunas in the world. The DEIS fails to recognize that salamanders and mussels, for example, have a particular difficulty adapting or changing habitat to new streams.

9-2-2

All terrestrial and aquatic animals may have difficulty surviving largescale mining projects when the reclamation is not reforestation, but to grasses and non native plants.

The DEIS correctly recognizes that the Southern Appalachians contain some of the last remaining stands of a forest type that was once spread over the northern hemisphere and that these rich deciduous hardwood forests are increasingly threatened. Tennessee's hardwood deciduous forests, the mixed mesophytic, are the seedbed for many plant species and habitats.

Yet the DEIS fails to fully consider the value of these forests and the terrestrial and aquatic species dependent on them and the very real predictability of their destruction - and extinction- by widespread mountaintop mining and valley fills.

The DEIS makes false assumptions about the value of the coal produced, underestimates the costs of mitigation measures and of cleaning up the water, and fails to consider the adverse health consequences of increased coal burning by coal burning power plants due to increased coal supply. The economic value of the losses to the region's tourism industry from the degraded environment are not given adequate consideration.

11-7-2

The DEIS description of the choice of different mining methods and the associated costs looks only at maximizing the coal recovery in the least expensive possible way and does not adequately factor in the value to the environment of environmental protection measures. Stream mitigation and permitting costs are underestimated, as well as dangers from possible dam or sediment basin breach and from the long term effects of acid and coal mine drainage.

Due to the massive size and devastating effects of these mountaintop mining operations, many streams and watersheds are affected. So much water is difficult to protect. The DEIS fails to consider the long term effects on ground water hydrology from widespread mountaintop mining. Such effects can be predicted to be very significant. Bonta, J.V, C.R. Amerman, W.A. Dick, G. F. Hall, T.J. Harlukowicz, A.C. Razem,and N.E. Sneck. "Impact Surface Surface Coal Mining on Three Ohio Watersheds –Physical Gonditions and Ground Water Hydrology" **Journal of the American Water Resources Association**, Volume 28, Number 3, June, 1992, 577-596 at 593.

The DEIS assumes a great value for man-made ponds or basins as a means of controlling sediment. According to the Stormwater Center, "... few (sediment basins) are probably capable of consistently removing 70% of the incoming sediment, much less the 95 to 99% removal that is typically assumed," and measures to increase the solids trapping efficiency of sediment basins are rarely incorporated into the design (Stormwater Center 2003). Stormwater Center (2003). "Improving the Trap Efficiency of Sediment Basins." Technical Note #84, Watershed Protection Techniques. 2(3): 434-439 (http://www.stormwatercenter.net)[2]

5-6-2

The DEIS recognizes the value of headwater streams to the river ecosystem. *Doppelt, et al* 1993. "Even where inaccessible to fish, these headwater streams provide high levels of water quality and quantity, sediment control, nutrients and wood debris for downstream reaches of the watershed. Intermittent and ephemeral headwater streams therefore are often largely responsible for maintaining the quality of downstream riverine processes and habitat for considerable distances."

Yet, the following quotes indicate that the DEIS recognizes that the dangers of valley fills and the potential offsetting values of sediment basins need further study.

"Filling or mining stream areas even in very small watersheds has the potential to impact aquatic communities some of which may be high quality or potentially support unique aquatic species." DEIS - III-D-4. It has not been determined if drainage structures connected with mining can provide some benefit."

[1]The DEIS does not adequately address certain issues specific for Tennessee, when it addresses specifics for the other states, ie the extent of remaining coal surfaceminable seams in Tennessee or remining issues specific to Tennessee.

[2]At the Zeb Mountain site in Tennessee, after only a few months of mining in a 10 year life of mine operation, total suspended solids readings in a major stream (home of the federally theatened fish the blackside dace) have already been consistently more than ten times the permit limits. We submit that the coal industry's use of the Sed Cad 4 and OSM's permitting procedures are based on faulty modelling and inadequate predictions for sediment loads in sediment basins.

"Further evaluation of stream chemistry and further investigation into the linkage between stream chemistry and stream biotic community and structure are needed." DEIS- III-D-7. 5-5-2

"While these studies illustrate that mining and valley fills may alter the sediment composition of streams, it is not known if this change may impact functions of streams downstream or how long those impacts may last. Assessment of stream sediment characteristics should be included in any further evaluations or monitoring program for streams downstream from mining and valley fills." DEIS- III-D-8

". . potential impacts from valley fills to stream chemistry and possible alterations to stream geomorpholgy were discussed as areas of further need for investigation" DEIS -III-D-11 5-6-2

We submit that because these further studies are needed, this Draft Environmental Impact statement is incomplete.

Finally, the DEIS fails to consider the adverse health consequences to the population in the region (and in the nation) of increased coal burning by coal burning power plants due to increased coal supply from increased coal mining in this region. The Eighth Circuit Court of Appeals recently found that NEPA required the Surface Transportation Board to consider the indirect adverse impacts of increased coal supply on air quality. *Mid-States Coalition for Progress v Surface Transportation Board of America*, No. 02-1359 (8th Cir. October 2, 2003). 15-2-1

Mountaintop mining and valley fills have the potential, due to downstream reach and widespread air quality impairment, for a devastating impact on areas much larger than those permitted. We believe that it is a serious mistake - and self destructive act - for this human species to risk extinction of so many other species all in the sake of pursuing a noxious source of energy which has been shown to have harmful health consequences for us all.

We suggest that this draft Environmental Impact Statement must be re-done for additional studies and issues to be assessed.

Thank you for the opportunity to make these comments.

Sincerely

Mary M. Mastin

Mary M. Mastin
Conservation Chair, Sierra Club
Upper Cumberland Group

SIERRA CLUB
FOUNDED 1892

Mr. Brian H. Paddock
Ms. Mary Mastin
360 Roberts Hollow La.
Cookeville, TN 38501

Save Our Cumberland Mountains, Inc.
224 South Main Street, Suite 1
P. O. Box 479
Lake City, Tennessee 37769

January 2, 2004

Mr. John Forren
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

e-mailed to EPA: mountaintop.r3@epa.gov

RE: Comments on [Federal Register: May 30, 2003 (Volume 68, Number 104] [Notices] [Pages 32487-32488], DEPARTMENT OF DEFENSE, Department of the Army, Corps of Engineers, ENVIRONMENTAL PROTECTION AGENCY, DEPARTMENT OF THE INTERIOR, Office of Surface Mining, and Fish and Wildlife Service, Draft Programmatic Environmental Impact Statement, AGENCIES: U.S. Army Corps of Engineers, Department of the Army, DOD; Environmental Protection Agency; Office of Surface Mining and U.S. Fish and Wildlife Service, U.S. Dept. Of the Interior; and West Virginia Department of Environmental Protection, ACTION: Announcement of Draft Programmatic Environmental Impact Statement (DPEIS) availability and notice of public hearings. Comment deadline is January 6, 2004

Dear Mr. Ferron,

The Stripmine Issues Committee of ***SAVE OUR CUMBERLANDS MOUNTAINS, INC.*** (SOCM) is submitting the following written comments on the above agencies announcement of the Mountaintop Mining and Valley Fills in Appalachia. The Draft Programmatic EIS considers new or revised program, guidance, policies, or regulations to minimize, to the maximum extent practicable, the adverse environmental effects of mountaintop mining and valley fill operations within the Appalachian study area in West Virginia, Kentucky, Virginia and Tennessee. Written comments on the Draft Programmatic Environmental Impact Statement (PEIS) must be received by *January 6, 2004*.

Our comments will address concerns within the Draft PEIS with any mountaintop mining and valley fills operations in Tennessee and its domino effects on Tennessee's citizens, its watersheds and individual county's economic growth plans, and the State of Tennessee and EPA Water Agreement. SOCM membership is composed of citizens who believe that they have an inherent power and right to affect the course of our lives and surroundings. SOCM is committed to using this power to improve the quality of life in our communities.

SOCM believe that citizens have a right to know about and have a voice in developments that affect us and communities. SOCM membership is concern with the Draft PEIS lack of addressing potential cumulative problems created from long term impacts of "Mountaintop Mining and Valley Fills" and "Mountaintop Removal Mining" and "Crossing Ridge Mining" operations which results in problems with restoration, maintenance and protection of water resources found in the 22 county area of the Tennessee coal fields.

EPA's national water program has worked with the State of Tennessee to create comprehensive state watershed approach strategies that actively seeks a higher standard of protection for the human environment. In an agreement with EPA, the state of Tennessee must identify all streams and lakes that do not meet water quality standards or do not have the required control strategy in place, must develop strategies to identify pollution sources, and purpose water quality improvements, beginning with the highest priority streams. The Draft PEIS does not address how federal agencies and the State of Tennessee plan to maintain the comprehensive state watershed approach strategies and grant proposed mountaintop mining and valley fills and mountaintop removal operations and cross ridge mining operations projects. "*Mountaintop mining operations in the Appalachian coalfields involved fundamental changes to the region's landscape and terrestrial wildlife habitats.*" [EPA, OSM, COE and FWS Preliminary Mountaintop Mining PEIS, January 2000] Mountaintop mining and valley fills would change the Tennessee's watersheds into wasteland of grassy knolls. With the increasing size of mountaintop mining operations, a single permit could change thousands of acres of Tennessee's hardwood forests, seriously pollute streams, and damage the sensitive ecological diverse watersheds. Tennessee's ecoregions serve as a geographical framework for establishing regional water quality expectations. Tennessee's watershed approach serves as an organizational framework for systematic assessment of Tennessee's water quality problems. This unified approach affords a more in depth study of each watershed in the Tennessee coalfields and encourages coordination of public and governmental organizations. The proposed Draft PEIS fails completely to address how the proposed federal action will impact Tennessee's Watershed Management Approach program. 5-6-2

The proposed federal action on mountaintop mining and valley fills, mountaintop removal mining and cross ridge mining operations weakens the State of Tennessee's, U.S. Army Corps of Engineers', U.S. Fish and Wildlife Service's and EPA's standards for the highest priority of environmental management programs and protection policies to address problems associated with hydrologically-defined geographic areas and ground and surface water flow in the sensitive ecosystem watersheds of Tennessee's coal fields. The Draft PEIS for mountaintop mining and valley fills under current review weakens Tennessee and federal guidelines and principles of assessing proposed federal actions by partnerships, geographic focus and sound management techniques based on strong science and the latest data. Federal agencies continue to "re-act" to mine related problems instead of anticipating problems.

Over the past two decades, the Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (COE), U.S. Fish and Wildlife Service (FWS) and the Office of Surface Mining Reclamation and Enforcement (OSM) have achieved important reductions in discharged pollutants to the Nation's air, lakes, rivers, wetlands, estuaries, coastal waters,

and surface and ground waters. These successes have been achieved by controlling point sources of pollution and enforcing high standards. The Clean Water Act was a major role player in achieving these improvements in our Nation's drinking water supply. The proposed changes to mountaintop mining and valley fills permitting would seriously damage all federal agencies' credibility and accountably to the American public to restore and maintain the chemical, physical, and biological integrity of our Nation's waters. The Draft PEIS usage of the so-called "Study Areas" data for Tennessee which consist of data from known violators of SMCRA regulations and the Tennessee Division of Water Pollution Control – Mining Section's NPDES regulations is being used to misinterpret how the Tennessee Federal Program is addressing program-wide impacts and support of program-level decisions related to mountaintop mining and valley fills. The Programmatic EIS should discard all data from the Tennessee Federal Program in reviewing mountaintop mining and valley fills. 5-6-2

EPA, FWS, OSM and COE emphasis must be on raising the bar to a high standard to strengthen the public trust and sustain long-term environment improvements to our Nation's drinking water supply. The Draft PEIS does not achieve these high standards in its current form. Nationwide, the Draft PEIS only allows legal loopholes for coal industry operators and federal agencies to weaken the Clean Water Act of 1977 (CWA) and the Surface Mining Reclamation and Control Act of 1977 (SMCRA). In Tennessee it weakens the Tennessee Water Quality Control Act, and the Tennessee Code Annotated 69-3-101 to 69-3-137, and the Tennessee Safe Drinking Water Act of 1983, TCA 68-221-701 to 68-221-720, and the Tennessee Federal Program, 30 CFR Subchapter T, Part 942 – Tennessee. 5-5-1

SOCM is concerned that the proposed Draft PEIS including Tennessee with states that have actual mountaintop removal mining sites with approved SMCRA permits. The study area data provides partial useful information while much of the data is too outdated to apply to the criteria stated in the February 5, 1999 Notice of Intent. [64 FR 5778] Particularly alarming are the differences between the Preliminary PEIS of January 2000 and the Draft PEIS of May 2003. The data from Tennessee's "Study Area" is misleading to the overall impact assessment in the Draft PEIS.

SOCM finds the Draft PEIS document to be inadequate and too deficient to adequately evaluate the Tennessee Federal Program and its program-wide impacts and support program-level decisions that are reasonable and defensible. The Draft PEIS evaluation does not provide complete environmental review and cost analysis of the array of issues concerning the natural and built environmental concerns. Key environmental advantages and disadvantages such as habitat loss, changes in land use, siting difficulty, sediment requirements and potential long and short-term consequences, monitoring needs and aesthetic impacts are not adequately address. The Draft PEIS does not address how the proposed federal action will affect the State of Tennessee own environmental and economic development policies. 4-2

While the proposed Draft PEIS addresses issues from the eyes of federal agencies and the political powers that be in Washington, DC, it fails to address the serious concerns that mandated the PEIS. Chief U.S. District Judge Charles Haden opened the eyes of America

to the serious damage being done to the Appalachian region of America. [cite Judge Charles H. Haden's decision October 1999, *Bragg v. Robertson*, (Bragg, U.S. District Court, Civil Action No. 2:98-0636 S.D. WV] Judge Haden's bold position to hold federal agencies accountable for they actions should be the guiding light in drafting any proposed PEIS to address significant impacts to our Nation's drinking water supply. The current Draft PEIS does not meet its original intent under NEPA. The Draft PEIS only priority is to support the use of mountaintop mining and valley fills, mountaintop removal mining and cross ridge mining and other types of surface coal mining in the Appalachian coalfields. 4-2

Sincerely,

LANDON MEDLEY, Chair
SOCM, Stripmine Issues Committee

SOSM Staff Contact:

Jonathan Dudley, Organizer

CC: (Text only, no attachments)

Katherine Trott, U.S. Army Corps of Engineers, Washington, DC
Michael Robinson, U.S. Office of Surface Mining, Pittsburgh, PA
Cindy Tibbott, U.S. Fish and Wildlife Service, State College, PA
Russell Hunter, West Virginia Department of Environmental Protection, Nitro, W.VA.
Governor Phil Bredesen, Nashville, TN
U.S. Senator Bill Frist, Washington, DC
U.S. Senator Lamar Alexander, Washington, DC
U.S. Representative Lincoln Davis, Washington, DC
Commissioner Betsy Childs, TDEC, Nashville, TN

EXECUTIVE SUMMARY AND SAVE OUR CUMBERLAND MOUNTAINS, INC. POSITION ON MOUNTAINTOP REMOVAL MINING AND CROSS-RIDGE MINING

The Draft Programmatic Environmental Impact Statement (PEIS) was prepared by the U.S. Army Corps of Engineers (COE), the U.S. Environmental Protection Agency (EPA), the U.S. Department of Interior's Office of Surface Mining (OSM) and U.S. Fish and Wildlife Service (FWS), and the West Virginia Department of Environmental Protection (WVDEP). The purpose of this EIS was to evaluate options for improving agency programs under the Clean Water Act (CWA), Surface Mining Control and Reclamation Act (SMCRA), the Fish and Wildlife Coordination Act (FWCA) and the Endangered Species Act (ESA) that would contribute to reducing the adverse environmental impacts of mountaintop mining operations and excess spoil valley fills (MTM/VF) in Appalachia.

Preparation of this Draft PEIS was intended to address substantial information gathering and relevant historical data, detail several possible alternative policy frameworks, and contains the result of scientific and technical studies conducted as part of an effort to address significant cumulative environmental impacts due to mountaintop mining and to address impacts from Mountaintop Removal Mining operations pursuant to the agreement in the settlement agreement known as *Bragg v. Robertson, Civ. No. 2:98-0636 (S.D. W.V.)*. This is a "programmatic" EIS consistent with the National Environmental Policy Act (NEPA) in that it evaluate board Federal actions such as the adoption of new or revised agency program guidance, policies, or regulations. "Mountaintop mining" refers to coal mining by surface methods (e.g., contour mining, area mining, and **Mountaintop removal mining**) in the steep terrain of the central Appalachian coalfields. [PEIS, Executive Summary, page ES-1, 2003)

This Mountaintop Removal Mining and Valley Fills data in the Draft PEIS should give more than a cursory investigation into the current and potential impacts of Mountaintop Removal in Tennessee. In the Draft PEIS Tennessee surface coal mining operations are included in some of the data. However the Draft PEIS never examines the history of compliance of these surface coal mining operations in Tennessee, which are included in the Draft PEIS. *SOCM opposes Mountaintop Removal and Cross Ridge Surface Coal Mining Operations.* These practices are violations of the spirit of federal laws: CWA, SMCRA, FWCA and ESA. Mountaintop Removal and Cross Ridge mining forever alters the landscape and destroys mountain communities. Mountaintop removal is incompatible with long-term economic development opportunities such as tourism. 1-9

In Tennessee there have been few if any permits for Mountaintop Removal operations. Instead OSM's Knoxville Field Office has been issuing permits for other types of Mountaintop Mining. Over the past ten years OSM's Knoxville Field Office has issued five permits for "Cross-Ridge Mining". *SOCM views Cross Ridge Mining" as another type of Mountaintop Removal and is opposed to this practice.* The use of a different name for what amounts to basically the same practice is a cynical attempt by the coal industry and

regulatory agencies to avoid the scrutiny that has been focused on Mountaintop Removal by Judge Haden's decision.

Cross Ridge Mines do not receive a variance from AOC; and purport to restore mountains to their original contour. In some cases this may lesson the need for "Valley Fills" or "Head of Hollows Fills". However so far in Tennessee all Cross Ridge Mines have either been permitted with or revised to have changes to include fills. Even when Cross Ridge Mines do not include valley fills they may be just destructive (through erosion, disturbance of large acreage, and potential slope failure) to public waters as valley fills. SOCM is very concerned about the safety of operation – there is much potential for hazards both to coal industry employees working on site and citizens who live near these mines.

The impacts of Cross Ridge Mining in Tennessee and potential impacts of the practice across the region must be addressed in the Draft Programmatic EIS. The Draft Programmatic EIS for the federal program in Tennessee dedicates only a few paragraphs to this practice under the title Cross Ridge Mountaintop Removal. The Mountaintop Mining Draft Programmatic EIS should take a comprehensive look at Cross Ridge Mining. The Draft PEIS should address concerns about disposal of excess spoil, slope stability, erosion, safety, and technical feasibility related to Cross Ridge Mining.

The Draft PEIS only looks at blasting complaints during the period of June 1998 to July 1999. During this period there were only 6 blasting complaints in Tennessee. We know that at the Cumberland Coal Company site in Cumberland County, Tennessee alone there were more then 10 complaints. We know that current SMCRA regulations allow blasting which damages homes and wells. This study should not use the assumption that compliance with blasting regulations will prevent damage. 16-3-2

The Draft PEIS fails to access the significant direct and indirect impacts of mountaintop mining on the economies of Tennessee's 22 coalfield counties. The Draft PEIS should examine the full cost of surface coal mining operations on the economy, instead of only looking at surface coal mining jobs. The Draft PEIS does not address cumulative impacts of changing the topography and land cover or storage of mine waste in head of hollow fills would have on Tennessee. 11-9-2

Members of Save Our Cumberland Mountains who fought for the federal Surface Mining Control and Reclamation Act of 1977 and created the Applicant Violator System (AVS) program took seriously the provision of SMCRA which says that Mountaintop Removal with a variance from Approximate Original Contour will only be allowed when it is shown there is a better post mining use for the land if it is left flat. These members question whether this standard had even been applied. The wide use of granting a variance from approximate original contour that we have seen in other states is unacceptable and is not in the spirit of the 1977 Surface Mining Control Reclamation Act. 19-3-2

The use of "Valley Fills" and other mining practices that store waste or otherwise alter the waters of the United States are in violations of the Clean Water Act and should not be permitted. Federal agencies should enforce the 100 feet buffer zone and the Clean Water Act. Mountaintop Removal operation by design violates these laws. 5-7-1

SOCM strongly disagree with the premise that better coordination among agencies will address concerns about Mountaintop Removal and Mountaintop Mining. Instead federal agencies should study the impacts of these mining practices and act to protect communities and the environment by not allowing Valley Fills and Head of Hollow Fills, not allowing an Approximate Original Contour Variances, enforcing the 100 feet stream buffer zone, and taking a second look at the feasibility of returning whole mountain peaks to original contour. ***SOCM an organization of over 2000 members in Tennessee wishes to go on record opposing "Mountaintop Removal" mining and "Cross Ridge" mining operations in the coalfields of Tennessee and our Nation. SOCM does not support Alternatives #1, 2 and 3 contained within the Draft PEIS.*** 1-5

Of four states studied in the Draft PEIS, Tennessee is the only state with a Federal Surface Mining Regulatory Program carried out by OSM-Knoxville Field Office. The Draft PEIS should take into consideration the experience if Tennesseans before recommending changes in the amount of authority given to OSM in permitting of Mountaintop Mining and Mountaintop Removal and Cross Ridge mining operations. An examination of the violations in Tennessee would show that OSM has been ineffective in preventing surface mining companies from violating the law. The Draft PEIS should evaluate the record of violations of all the mines by OSM-Knoxville Field Office. The case history records of the Skyline Coal Company, the Eastern Mineral mining site and the Rith Energy operation and others surface coal mining operations are clear examples of bad permitting assessment in Tennessee. Yet, these areas are noted in the Draft PEIS as study areas. This mining operation's record of violations gives a more complete picture of OSM's Mountaintop mining [pursuant to the Draft PEIS definition of MTM/VF] permitting in Tennessee. 1-13

In Tennessee, the public participation process is programmatic. Instead of being a time when the public can raise concerns about a mine which OSM takes into consideration in its decision to grant or deny a SMCRA permit, it has become a period during which OSM and a mining company work together to adjust mining plans to avoid concerns raised by the public. OSM-Knoxville Field Office acts as a consultant to the mining companies instead of just evaluating and makes a decision about a permit application.

In the case of Zeb Mountain Cross Ridge Mine in Campbell and Scott Counties, Tennessee, many significant changes were made to the permit application after the public comment period has closed. When OSM-Knoxville Field Office held an informal conference on the permit application many aspects of the application were in flux so it was impossible for local resident and concerns citizens across Tennessee to know what to comment on. Later OSM-Knoxville Field Office used the fact that SOCM members had made multiple visits to the Knoxville Field Office to raise concerns and get information, as a reason for NOT reopening the comment period. But, still citizens across Tennessee were left out of an opportunity to make comments on these changes to the Zeb Mountain original SMCRA permit application. 2-1

Tennesseans across the coalfields have been left out of the Draft PEIS comment period process. Scoping has been inadequate; there was no scoping hearing held in Tennessee. Many State agencies were unaware that the Draft PEIS covered more than just 3-1

Mountaintop Removal operation with an AOC variance. Most people in Tennessee were not aware of the Draft PEIS. The Draft PEIS fails to provide the best available scientific and technical information that will facilitate a better informed, more coordinated and efficient decision-making process by federal agencies.

The Draft Programmatic EIS should be discarded and return to its original task to prepare a joint voluntary Environmental Impact Statement that will fairly examine agency policies, guidance, and decision-making processes in order to determine whether they can and do minimize, to the maximum extent practicable, adverse environmental effects from Mountaintop Mining, Mountaintop Removal Mining and Cross Ridge Mining operations and the disposal of excess spoil in valley fills. The current Draft PEIS only "rubberstamps" the present policies of federal and state agencies and revised the current procedures to do away with surface coal mining law's buffer zone that prohibits mining activities to disturb within 100 feet of large streams, eliminating the current limit on using nationwide permits to approve valley fills in West Virginia that are larger than 250 acres, and giving the Office of Surface Mining and Reclamation a greater in Clean Water Act permitting. Judge Haden's decision recognizes the damage being done to Appalachia communities. The current proposed Draft PEIS fails to address the irreversible harm to the environment and to communities in the coalfields of our Nation. The Draft PEIS at ES-8 states that approximately 1200 miles of headwater streams "were directly impacted" by Mountaintop Removal Mining and Valley Fills between 1992 and 2002. There is no scientific basis that would confirm an environmentally "acceptable" amount of stream loss. The Mountaintop Mining and Valley Fills EIS Steering Committee agreed that it is "difficult if not impossible to reconstruct free flowing streams on or adjacent to mined sites". (August 15, 2002, committee's working draft) 4-2

Save Our Cumberland Mountains ask that federal and state agencies and their officials I realizes that the current regulations, policies, procedures, and guidance has not adequately protected the environment and the citizens of the coalfields of our Nation. The proposed Draft PEIS is a step backward in time to 1976 before the Clean Water Act, the Clean Air Act and SMCRA. Our citizens, their communities and the environment should not become a political toy by the coal industry. SOCM urges that federal agencies step back to the Preliminary Draft PEIS and start all over again to address citizen's original concerns and Judge Haden's decision.

END

SAVE OUR CUMBERLAND MOUNTAINS, INC.
STRIPMINE ISSUES COMMITTEE
WRITTEN COMMENTS ON
FEDERAL REGISTER: MAY 30, 2003, PAGES 32487-32488
DRAFT PROGRAMMATIC ENVIRONMENT IMPACT STATEMENT
ON MOUNTAINTOP MINING / VALLEY FILLS

Save Our Cumberland Mountains, Inc. (SOCM) is an organization that was originally founded by citizens and for citizens affected by stripmining activity in eastern Tennessee and the Cumberland Plateau. Many of our members live in the 22 coalfield counties of Tennessee (Appalachia). SOCM has a long-standing history of struggling for citizen's rights to clean and safe drinking water and to live in a safe environment. SOCM is a member of the Citizens Coal Council. The following comments are submitted to specifically address the Draft PEIS 2003 and its contents as it relates to proposals and statements made about mountaintop mining and valley fills in the coalfields of Tennessee.

The definition of "Mountaintop Mining/Valley Fills (MTM/VF) Mining and Mountaintop-Removal Operation used in our comments is pursuant to the Draft PEIS definition found on in Glossary on pages VIII-10 and VIII-11. While the Tennessee Federal Program's definition found in OSM-EIS-18 varies somewhat in its wording, the Draft PEIS should clarify all official definitions for Federal run programs and state run programs. The general public finds it confusing to determine the differences between the "mountaintop mining/valley fills mining" and "mountaintop removal operations" found in the Draft PEIS. SOCM feels that this will cause many problems in written comments being submitted by citizens during the comment period.

The Tennessee coalfields are made up of the following (22) counties: Anderson, Bledsoe, Campbell, Claiborne, Coffee (no coal reserves are known to exist in Coffee County), Cumberland, Franklin, Grundy, Hamilton, Fentress, Marion, Morgan, Overton, the eastern parts of Pickett, Putnam, Rhea, Roane, Sequatchie, Scott, Sullivan, Van Buren, Warren, and White. [see page 3-1, Final Environmental Impact Statement, OSM-EIS-18].

Under NEPA, the primary purpose of an environmental statement is to serve as an action-force device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. [30 CFR Section 1502.1] The draft environmental impact statements shall be prepared in accordance with the scoping process. [30 CFR 1502.9(a)] SOCM feels that the current Draft PEIS is so inadequate as to preclude meaningful analysis that a revised draft PEIS should be done. The current Draft PEIS fails to assess the significant direct, indirect and cumulative impacts of large-scale mountaintop mining and valley fills on each individual watershed communities in Tennessee. The analyses of Tennessee's coalfield counties and the State of Tennessee's economic development and community growth plans are weak in evaluating impacts to long-term growth plans. "Environmental impact statements shall serve as the 4-2

means of assessing the environmental impact of proposed actions, rather than justifying decisions already made." [30 CFR Section 1502.2(g)] Federal agencies must, at a minimum, comply with the CEQ NEPA regulations when conducting their programs. The Draft PEIS has not taken a "hard look" at the cumulative environmental impacts of mountaintop mining; the viability if reclaimed streams compared to natural waters; the impacts that filled valleys have on aquatic life; wildlife and nearby residents; biological and habitat analyses that should be done before mining begins; ways to avoid and minimize stream filling; and the effectiveness of mitigation and reclamation.

The Draft PEIS should analyzes the comprehensive impacts to the human environment of decisions by federal agencies resulting from all types of coal mining conducted under the Tennessee Federal Program. The Draft PEIS should analyze the cumulative impacts that would result from any proposals to change current policies. Since October 1, 1984, OSM implemented a Federal program for the regulation of surface coal mining operations in the State of Tennessee. [page 1-1, OSM-EIS-18] The Draft PEIS proposed to changes portions of the current program policies to address mountaintop mining and valleys fills. This may effect the State of Tennessee statutes or regulations. The Draft PEIS needs to document what effects the Draft PEIS proposals will have on State of Tennessee's statutes and regulations. The current Draft PEIS has volume after volume of documentation on Kentucky, Virginia and West Virginia while very little documentation is given on Tennessee within the Draft PEIS. The federal agencies' press releases refer to better federal interagency commitment to require significantly better environmental review and protection measures. 4-2

The Draft PEIS needs to analyze all types of coal mining operations under the Tennessee Federal Program. Underground and surface coal mining methods, reclamation procedures associated with each method, and coal preparation plants and tipple operations that are described in the OSM-EIS-18. Underground coal mining, Surface mining, Area mining, Dozer-loader-truck area mines, Contour mine, Augering, and Mountaintop Removal operations data should be part of the analyzed data in the Draft PEIS. The Draft PEIS should state what impacts the proposed policy changes would likely have on these methods of mining operations under the Tennessee Federal Program.

Mountaintop removal is the removal of entire mountaintop down to the bottom of the lowest coal seam being recovered. [page 3-9, OSM-EIS-18] Mountaintop Removal Operations, includes, those mines that remove all or a large portion of a coal seam or seams running through the upper fraction of a mountain or ridge. There three types of mountaintop removal operations: (1) mountaintop removal with a variance from approximate original contour (AOC), (2) mines which remove all of the coal seam or seams in the upper fraction of a mountain but which return the land to AOC, and (3) steep-slope mines with an AOC variance. Under SMCRA, as well as both Federal and State regulations, all mines are required to return the mined land to AOC, unless the regulatory authorities, which, in Tennessee, are OSM, and the US Army Corps of Engineers, grant a variance. What is inadequately considered in the Draft PEIS is the role of the State of Tennessee in the proposed policies, guidance and coordinated agency decision-making process.

The purpose of the Draft PEIS, according to the Notice of Intent published in the Federal Register on February 5, 1999, is

> *"to consider developing agency policies, guidance, and coordinated agency decision-making process to minimize, to the maximum extent practicable, the adverse environmental effects to waters of the United States and to fish and wildlife resources affect by mountaintop mining operations, and to environmental resources that could be affected by the size and location of excess spoil disposal sites in valley fills."*

Does the Draft PEIS accomplish the full requirements and Notice of Intent pursuant to NEPA? It [the EIS] shall provide full and fair discussion of significant environmental impacts and shall inform descisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. [30 CFR Section 1502.1] Federal agencies are required to look at the "bigger picture" with any proposed federal action, such as described in the Notice of Intent of February 5, 1999. Other factors play a major concern with the proposed developing policies by EPA, OSM, FWS and COE. Surely Congress did not mandate a policy change to the Clean Water Act?

Has the Draft PEIS fully assessed and considered all NEPA required environmental, social, cultural, economic, and human impacts from the proposed federal action? SOCM believes that the Draft PEIS has only begun to address the full scope of environmental and human impacts. The Draft PEIS gives the impression that mountaintop mining and valley fills can be managed without harming the environment and the citizens of our Nation. The reality is that mountaintop mining and their domino cumulative impact does causes environmental and human impacts to the communities in the coalfields of our Nation. The Draft PEIS does not address these environmental and human impacts in depth. The Draft PEIS only addresses the "*process to minimize the adverse environmental effects to waters of the United States.*" While the required NEPA process of a "hard-look" to consider the full scope of long-term cumulative impacts have been overshadowed by a "fast-food" approach to assess cumulative impacts, during a short three-year period, not only harms the environmental community, but it put the humans at risk to health and environment impacts. OSM-Knoxville Field Office took eight years (1992 to 2000) to assess a "Lands Unsuitable for Mining Petition (LUMP) for the Fall Creek Falls State Park and Natural Area in Van Buren and Bledsoe Counties, Tennessee. These two counties are part of the "Study Area" noted in the Draft PEIS. Yet, reviewers of the Draft PEIS must assume that federal agencies have compile a document in approximately three years which covers four states. The issue is to complex and needs further detail scientific evidence to fully evaluate potential impacts from "Mountaintop mining". The Draft PEIS only places a "standard" for which to measure impacts. You can not place a government standard on the loss of your home or the cultural history of a community. 4-2

As stated by Kentuckians for the Commonwealth's Daymon Morgan, "*Once your old Kentucky home is gone, it is gone.*" No federal or state agencies can place a price tag on such a loss. This emotional statement reaches to the heart of the fundament principles of citizens' rights under the Constitution and the guiding principles of NEPA. Citizens across our Nation are only asking that federal agencies protect their communities. These individual rights and guiding principles are what US soldiers are dying for even today in 2004.

The information in the Draft PEIS gives the reader the impression that program's improvements put in place by federal and state agencies since 1998 have solved all the problems associated with mountaintop mining and valley fills. Here lies the real problem with making decisions and evaluations without proven scientific evidence. Does the Draft EIS meet all statutory requirements, as required by Section 102(2)(c) of NEPA [30 CFR Section 1502.3]? The Draft PEIS data is a collection of information gathered during a three-year period from states which operated their own individual SMCRA programs in Virginia, West Virginia and Kentucky on mountaintop mining and valley fills operations. The Tennessee Federal Program submitted data specifically on cross-ridge mining, contour mining, auger mining and area mining operations. Some of these sites are known violators of SMCRA and Tennessee Water Quality Control regulations.

SOCM believes that the Draft PEIS should include all statutory requirements that should be analyzed pursuant to: on proposals (sec. 1508.23), for legislation (Sec. 1508.17), other major Federal actions (Sec. 1508.18), significantly (Sec. 1508.27), affecting (Secs. 1508.3 and 1508.8) and the quality of the human environment (Sec. 1508.14), regarding any new proposed policies by federal agencies.

The Draft PEIS's Tennessee data does not supply adequate data or impacts assessments specifically on "mountaintop removal mining" permits in Tennessee since OSM-Knoxville had not been issued any permits for mountaintop removal mining during the study period. The mixing of data from different types of surface coal mining operations does not address the "Notice of Intent" of February 5, 1999. Federal agencies cannot apply assessment of cumulative impacts from other types of surface coal mining operations to specifically evaluate the impacts from "mountaintop removal mining" operations. In the Draft PEIS, the term "mountaintop mining" is not defined in the Surface Mining Control and Reclamation Act of 1977. SOCM believes that the require regulation 30 CFR 1502.4(c)(3) has not been achieved in the proposed Draft PEIS. SOCM finds that no proven "new technologies" are available to date on research, development or demonstration programs to address the Tennessee Federal Program pursuant to the original intent of the Draft PEIS. The Study Area for Tennessee in the Draft PEIS does provide some data on unproven "new technologies" sites. Many of these sites in the "Study Area" of Tennessee are locations of past and ongoing surface coal mining operation's violations. 9-2-1

Does OSM-Knoxville currently use appropriate standards in evaluating whether a particular postmining land configuration constitutes a return to AOC? They are various characteristics of 'land after mining" in terms of elevation changes, creation of valley fills, creation of level sections, and other general descriptive information. The issue is how any

of those characteristics, either by themselves or in combination, may be used in determining if mountaintop mining in Kentucky, Virginia, and West Virginia has been achieved to meet regulations. In Tennessee, the situations where OSM-Knoxville has determined that a waiver from AOC requirements is necessary, has it required appropriate postmining land use in granting the waiver? Was this information factored into the Draft PEIS assessment?

While mountaintop removal mining and valley fills are emotional issues, the Draft PEIS must provide sufficient scientific evidence to conclude that different methods of mountaintop mining operations are an acceptable risk in Tennessee. Mountaintop mining operations raise a number of other complex issues and consequences that are partially or totally outside the confines of SMCRA. One of the issues that both OSM and other federal agencies are continuing to examine is the way mountaintop mining operations affect local stream through construction of valley fills. The matter of valley fills involves the overlapping jurisdiction of several federal agencies including OSM, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, and the U.S. Army Corps of Engineers. The Draft PEIS must consider how federal agencies will coordinate with individual state's agencies and regulations to address various issues that are associated with mountaintop mining and valley fills practices. These various issues consist of the NEPA's "hard-look" catalogues for specific impacts outside of the direct and indirect impacts to the environment. The Affected Environment (Sec. 1502.15) and the Environmental Consequences (Sec. 1502.16) of the Draft PEIS should included information and analysis of environmental impacts of the proposal and the alternatives of direct, indirect and cumulative impacts.

Past litigation in the Draft PEIS "Study Areas" for Tennessee [see map, Attachment #1] should have raised serious questions about compliance with the Clean Water Act in connection with mountaintop mining and valley fills operations in the future. The Draft PEIS Study Areas noted mountaintop mining operations (pursuant to Draft PEIS definition) which resulted in the following lawsuits during the compiling of the Draft PEIS: 5-5-1

1. (see Attachment #2A): *Eastern Minerals Int'l v. v. The United States*, Supreme Court No. 01-1100 (2002).

2. (see Attachment #2B): *Eastern Minerals Int'l v. The United States* Fed Cl No. 99-5054, -5059 (November 19, 2001) which summarizes (*Eastern Minerals Int'l v. The United States* 168 F. 3d 1322 (Fed. Cir. 1998) and (*Eastern Minerals Int'l v. The United States*, 39 Fed. Cl 621,631 1997[Eastern II] and (*Eastern Minerals Int'l, Inc. v. The United States*, 36 Fed. Cl. 541, 552, 1996 [Eastern I]) and *Eastern Minerals Int'l v. The United States* Fed Cl filed Dec. 29, 1994).

3. (see Attachment 2C): *Cane Tennessee, Inc. and Colton, Inc. v. The United States*, Fed. Cl No. 96-237L Filed September 30, 1999).

4. (see Attachment 2D): Rith *Energy, Inc. v. The United States*, Supreme Court No. 01-1145 (2002).

5. (see Attachment 2E): Rith Energy, Inc. v. The United States, Fed. Cl No. 99-5153, Filed May 2, 2001.

6. (see Attachment 2F): *Rith Energy, Inc. v. The United States*, Fed. Cl No. 92-480L, Filed June 25, 1999 and Motion for Reconsideration, Filed July 28, 1999 which summarizes Rith Energy, Inc. v. The United States (No. 89-1-PR, March 26, 1989) Rith Energy, Inc. 111IBLA 239, 244 (1989), *Rith Energy, Inc. v. The United States*, Filed November 22, 1989, *Rith Energy, Inc. v. The United States*, Filed January 25, 1989, Rith Energy, Inc. v. The United States, Filed August 31, 1988.

7. (see Attachment 2G: *Mountains Save Our Cumberland, Inc. v. Office Surface Mining Reclamation and Enforcement, and Skyline Coal Skyline*, NX-97-3-PR (1998).

The Draft PEIS fails to assess conflicts with other states agencies' and federal agencies' land use and environmental laws, regulations, and policies from mountaintop mining and valley fills operations. Are the proposed alternatives in the Draft PEIS in compliance with the State of Tennessee's laws and regulations? In order to provide an accurate picture of mountaintop mining and valley fills operations in Tennessee, the Draft PEIS readers would need to know the answer to this question. The data about the actual size of the valley fills created in connection with the mountaintop mining operations and valley fills should be factor into the evaluation. The Draft PEIS has omitted assessing limiting sizes of mining operation as an option to minimize impacts.

3-5

The draft PEIS fails to answer if mountaintop mining is an acceptable risk in Tennessee. All the "Study Areas" in Tennessee were either cross-ridge mining, contour mining, area mining or auger mining operations. These sites chosen for data have some of the worst surface coal mining violations in the history of the Tennessee Federal Program. [OSM-Knoxville Field Office NOV files] Skyline Coal Company stands as one of the worst surface coal mining site for violations. The data provided by OSM-Knoxville from the Skyline Coal Company should be question. The Draft PEIS fails to note the long history of problems of surface coal mining the toxic and acid mine drainage of the Sewanee coal seam. The Draft PEIS fails to note the lawsuits between OSM and SOCM in permitting the Big Brush Creek Mining Complex. The Draft PEIS fails to note other problem areas in the Sewanee coal seam such as; Eastern Minerals (Bledsoe County) v. Rith Energy (Bledsoe County) and Skyline Coal Company (Sequatchie Van Buren Counties). The bankrupt Horizon Natural Resources (former AEI Resources Holding, Inc.) and their associates companies in Tennessee have serious data accuracy questions. The Cumberland Coal Company's problems with recorded mining violations. [OSM-Knoxville Field Office Novs files] Yet, the Draft PEIS, "*assumes that impacts in the study area would probably be at least as significant as impacts in other areas, and that the measures to address these impacts for the study area would be adequate for other areas as well.*" *[page, PART I-3, PEIS]* This leaves SOCM to question the valley fills data associated with these surface coal mining operations resulted in the loss and degradation of Tennessee streams, and that ARAP, NPDES and SMCRA permits were being improperly applied. And yet, the writers of the Draft PEIS give the readers the assumption that mountaintop

mining and valley fills impacts can be "minimize" by state run programs in Kentucky, West Virginia, and Virginia. Yet, the Tennessee Federal Program can not "minimize" regular surface coal mining operation's impacts in Tennessee associated with known violator's surface coal mining operations.

The Draft PEIS "fast-food" approach of selective gathering and assessing of data for a short 3-year period is not scientifically sound. The Preliminary EIS of January 2000 raised a number of concerns with the long-term cumulative impacts from mountaintop mining that have been shadowed by the Draft PEIS of May, 2003. SOCM questions the reference data in the Draft PEIS, relating to Tennessee, it is not accurate up-to-date mountaintop mining data. Since the Tennessee Federal Program is administrated by OSM directly, it can not accurately represent a state run program such as Virginia, Kentucky and West Virginia. More complete data collection and analysis, and other actions, such as peer review, would aid to consider developing agency policies, guidance, and coordinated agency decision-making process to minimize the adverse environmental effect.

NEPA review sets forth a process designed to ensure that the environmental information is available to public officials and citizens before decisions are made. Since the release of the Draft PEIS, SOCM has not seen a printed public notice in any of the 22 county area of the Tennessee coalfields to let citizens know if the proposed federal action. 3-2

There are still uncertainties about how to apply the AOC requirements in the Draft PEIS, and how broadly or narrowly the postmining land use limitations should be construed by federal agencies. These uncertainties change with each new administration in Washington, DC.

SOCM has concerns with the administration of various aspects of the mountaintop mining and valley fills program. Some of the issues have existed since the early days of the Tennessee Federal Program [49 FR 15496, 49 FR 38874], while other concerns related to the recent increase in the number and size of mountaintop mining permits that will effect the future decision-making under the Tennessee Federal program. Such decisions, must be made with the cooperation of local and state agencies, and have full public involvement.

The Draft PEIS should assess and analysis the federally operated Tennessee Federal Program's mountaintop mining and valley fills conflicts. The Tennessee Federal Program has a long history of problem areas: (1) public notice, (2) regular schedule meetings with the public, (3) outreach meetings in the coalfields of Tennessee, (4) public involvement with the SMCRA permitting process, (5) scoping public notices, (6) peer review process, (7) networking with all state agencies, (8) enforcement of SMCRA laws, (9) holding public hearings for incomplete SMCRA permits, (10) poor assessments of direct and indirect cumulative impacts at permit sites, (11) poor records of site inspections, (12) issuing permits at National Historic sites: "Trail of Tears", (13) delaying lands unsuitable of mining petitions, (14) blasting inspections and enforcement, (15) enforcing the Clean Water Act, (16) issuing fines for NOVS, (17) poor assessment of AMD impacts on aquatic life near SMCRA permit sites, (18) issuing poor water monitoring plans at SMCRA permit sites,

(19) poor assessment of land use during permit review, (20) bad blasting complaint process for citizens, (21) poor assessment of impacts to on-site and off site Threatened and Endangered Species during SMCRA permit application review, (22) poor pre-blasting survey process, (23) poor assessment of impacts to scenery and culturally significant landscapes, (24) staffing and funding problems, (25) poor coordinated assessment of economic impacts at county and state levels, (26) allowing mining in the old Spencer Artillery Range, (27) poor coordinating with county governments (county historians and civic leaders, Chambers of Commerce), (28) allowing poor toxic and acid material handling plans, (29) allowing permits in known toxic coal seams: the Sewanee coal seam, (30) allowing permits near state interstate highway routes, (31) poor assessments of impacts to wetlands, (32) poor assessment of habitat impacts, (33) poor assessment of direct and indirect impacts from deforestation, (34) no watershed approach assessment to reviewing proposed SMCRA permits, (35) poor mitigation assessments of proposed SMCRA permits, (36) no proactive AML program, (37) no karst system database, (38) no ground water assessment procedure,(39) poor procedures to report mining violations takes to much time, (41) poor bonding procedures, (41) poor record keeping of transfer and sale of mineral rights by coal companies, (42) poor civil penalties enforcement, and (42) outdated database.

"JOBS" versus "THE ENVIRONMENT" MYTH

The Draft PEIS fails to give an accurate assessment of job losses in the coal industry. As coal production rose 32 percent between 1987 to 1997, the coal industry recorded a 29 percent job loss during the same period. The truth is that some mountaintop mining operations reduces the total number of jobs such as operations that use more conventional methods. Less manpower operations is an economic reality in today's global economy.

What is not answered in the Draft PEIS is that economic impacts to coalfield counties after the closings of mining operations which is the true measurement of economic impacts to local, county and state economies. The Draft PEIS only provides short-term economic impacts. The Draft EIS fails to give economic long-range growth plans for each state: West Virginia, Kentucky, Virginia and Tennessee. Each state is working with individual federal and state agencies to develop key goals and strategies to improve and plan long-term jobs. The Draft PEIS fails to provide how federal agencies plans to off-set job losses to other industries that could be significantly effected in Tennessee by large mountaintop mining and valleys fills sites, such as recreational and tourism industries, hotel and motel industries, restaurant industries, Gasoline industry, Arts and Crafts industries, amusement park industries, fishing and hunting industries. *"Tourism is the second-largest industry in Tennessee, drawing more than 38 million visitors who spend approximately $10 billion annually. Tourism in Tennessee generates as many as 176,000 jobs, which account for $4.4 billion in wages."* [see Attachment #3, Bob Keast, Executive Director of Tennessee Association of Resorts, Marinas and Marine Dealers] Attachment 3(a) illustrates how individual counties in the coalfields of Tennessee depend on tourism to balance its local economy and tax revenues. The Draft PEIS fails to provide accurate assessment on

11-9-2

economic impacts to local and state officials in recruiting new tourism businesses to locate in Tennessee.

STATE OF TENNESSEE
ANTIDEGRADATION POLICY

The Draft PEIS fails to resolve the conflict between Tennessee's Antidegradation Statement in Chapter 1200-4-3-.06 of the Rules of the Tennessee Department of Environment and Conservation and the Tennessee Water Quality Control Board. The Draft PEIS must determine the direct and indirect impacts of mountaintop mining and valley fills so as to ensure that the preferred alternative will meet the Tennessee antidegradation requirements.

The Draft PEIS fails to determine direct and indirect cumulative impacts to State Parks, Natural Areas and Wildlife Management Areas located in the watersheds listed in the Tennessee "Study Area". Pursuant to Tennessee Antidegradation requirements, mountaintop mining and its associated valley fills would not be allowed to operate since degradation from upstream point source discharges or physical alteration would result. "Degradation" is defined as a lowering of water quality.

The Draft PEIS fails to assess Tennessee "High Quality Waters". Federal guidelines require "high quality" waters to include those, which meet or exceed standards. The Draft PEIS fails to assess the impacts on Tennessee's comprehensive policy document that follows the promulgation of the regulations. The Draft PEIS fails to analyze the impacts of mountaintop mining and valley fills upon Tennessee's antidegradation implementation process. What are the antidegradation procedures which must be developed in clearly articulated written procedures that outlines the process that will be used by federal agencies. What are the cumulative impacts upon scenic rivers, lakes and reservoirs in the coalfield counties of Tennessee?

5-5-1

"High Quality Waters are those that:

1. Provide habitat for ecologically significant populations of aquatic or semi-aquatic plants and animals (including those proposed or listed for formal state or federal status).
2. Provide special recreational opportunities.
3. Possess outstanding scenic or geologic values.
4. Where existing conditions exceed water quality standards.

These issues should have been assessed and analyses in the Draft PEIS relating to mountaintop mining and valley fills in Tennessee and its impacts upon the "Antidegradation" policy.

CONCERNS WITHTHE DRAFT PEIS "STUDY AREA" DATA AND THE TENNESSEE FEDERAL PROGRAM AND THE AVS PROGRAM

The cumulative impact study areas in Tennessee consisted of surface coal mining sites. [see again, Attachment #1] These sites received SMCRA permits between January 1992 to 2002. These sites were approved to use surface mining methods or a combination of surface and underground methods to extract coal. This data from the Tennessee Federal Program were used by OSM Pittsburgh Office to study cumulative impacts for the Draft PEIS along with data from individual state run programs in Kentucky, West Virginia and Virginia.

What is missing from the database information is

- The history of types of surface mining operations were used and the history of violation data from each site.
- Additional data characterizing violations would show a clearer picture and understanding of problems related to SMCRA permitting in Tennessee.
- Information from the AVS Federal database on mining operators at each Tennessee Study Areas.
- New geographical discoveries in Tennessee's coalfields are missing from the OSM's database. Additional discoveries of plants, animals and aquatic life is missing from the OSM's database. 9-5-2
- The OSM-Tennessee database does not show new state parks and natural areas designated by the State of Tennessee.
- The total numbers of NOVs from each of the "Study Area" site(s) are missing from the OSM's database. This important information of NOVs would show a clearer understanding of potential cumulative problems that could occur with mountaintop mining and valley fills. An example of one of the worst cases of degradation in Tennessee is the Big Brush Creek Complex of Skyline Coal Company owned by Addington Enterprises (now Horizon Natural Resources) in Van Buren and Sequatchie Counties, Tennessee.
- OSM-EIS-18, 3.2.2 RESERVES OF COAL IN TENNESSEE, pages 3-1 to 3-4 gives a clearer picture of the reserves of coal in Tennessee. Does the scope of the Draft PEIS go beyond the minimum recovery factor of measured coal seams? The potential cumulative impacts would vary from county to county in Tennessee due to the depth of each individual coal seam.
- OSM-EIS-18, 3.3 COAL MINING OPERATIONS, pages 3-6 to 3-10, addresses such operations as: 3.3.1 Underground coal mining, 3.3.2 Surface mining, 3.3.2.1 Area

mining, 3.3.2.1.1 Dragline area mines, 3.3.2.1.2 Dozer-loader-truck area mines, 3.3.2.2 Contour mine, 3.3.2.3 Mountaintop removal, 3.3.2.4 Augering, and 3.3.3.1 Tipples, and 3.3.3.2 Preparation plants. Does the scope of the Draft PEIS cover all of the above operations?

- OSM-EIS-18, Figure 3-1, Regional map of the Tennessee bituminous coal field, page 3-12, The map shows individual counties. Does the Draft PEIS include data from ALL 22 counties?
- OSM-EIS-18, 3.5.1.1 GEOLOGY OF THE TENNESSEE BITUMINOUS COAL FIELD, page 3-13, Five regions of coal province are named: Cumberland Block Region, Wartburg Basin Region, the Northern Cumberland Plateau Region, Southern Cumberland Plateau Region and Walden Ridge Region. Does the Draft PEIS assessment data include all five regions? They are more than 25 named coal seams in the Cumberland Block Region, page 3-17. The Wartburg Basin Region has 16 commercial coal beds, page 3-18. The Northern Cumberland Plateau Region has 5 commercial seams and 15 named coal beds, page 3-19; The Southern Cumberland Plateau has 7 coal seams and 13 named coal beds, page 3-20. The Walden Ridge Region has 9 commercial seams and 13 named coal seams. Does the Draft PEIS assessment data include all five regions and their individual coal seams?
- OSM-EIS-18, 3.5.2.1 SURFACE WATER QUALITY, page 3-21, Abandoned and active mines exist in all five-coal regions. Does the Draft PEIS database assessment include the results from these abandoned and actives mines? To fully assess the intent of the Draft PEIS, and address proposed policy changes, Federal agencies would need to know past mountaintop mining operations impacts in these regions. 9-5-2
- OSM-EIS-18, page 3-22, paragraph 2, "Problems associated with surface runoff are directly related to climate and precipitation as well as to topography and geology." Does the Draft PEIS address potential increases of these types of associated problems with mountaintop mining and valley fills?
- OSM-EIS-18, Figure 3-5, Wildlife Management areas within the adjacent to the Tennessee coalfields, as outlined on pages 3-60 of OSM-EIS-18. The information is outdated. Does the Draft PEIS show or listed updated sites that have been created over the past 18 years? Does the Draft PEIS evaluation includes these additional sites?
- OSM-EIS-18, 3.5.8 ECONOMIC CONDITIONS, pages 3-73 to 3-78, is outdated. Does the Draft PEIS include updated information?
- OSM-EIS-18, 3.5.9 POPULATION TRENDS, pages 3-78 to 80, is outdated. Does the Draft PEIS include the latest known data?
- OSM-EIS-18, 3.5.11 LAND USE Use, page 3-84, is outdated. Does the Draft PEIS include the latest known state and community growth plan data?

- OSM-EIS-18, 3.5.12 TRANSPORTATION, pages 3-84 to 3-86, is outdated. Does the Draft PEIS include the latest known data on current and future transportation plans?

The Draft PEIS is in conflict with the purpose of OSM-EIS-18 which in part is to analyzes the cumulative impacts and consequences of decisions by OSM on SMCRA permit applications under the Tennessee Federal Program. These assessments would address how OSM and the SMCRA permit applicant plan to meet compliance of adequacy of information to allow OSM to comply with the National Environmental Policy Act of 1969 (NEPA) for any future proposed SMCRA permits. [30 CFR 942.773(b)(6) and 49 FR 38892, Oct. 1, 1984 and 65 FR 79582, 79672, Dec. 19, 2000].

The Draft PEIS does not contain data or information on database information from the AVS program. What is the AVS history of individual study areas in the Draft PEIS. If no AVS information is available or operators have no past AVS history then the Draft PEIS should state such information for reviewers.

The Draft PEIS does not provide information on NOV history of the Tennessee Study Areas. Reviewers are to assume the Tennessee Study Areas never received any NOVS during their operations. ALL, factual data and history should be included in the Draft PEIS about "Study Areas". The proposed federal action requires a "hard look" at all available information. Any well-written Programmatic DEIS would have this information for reviewers. Both the "GOOD" and the "BAD" of mountaintop mining and valley fills should be within the Draft PEIS pages. Federal Agencies should be free from bias and impartial to the either side. 9-5-2

The Draft PEIS fails to provide the full impacts to the Tennessee Federal Program of the proposed federal agencies action. In fact, no in depth assessment of impacts to the Tennessee Federal Program is within the Draft PEIS. Specific sections should be added to the Draft PEIS that analyses the full scope of administrative impacts, costs and changes to the Tennessee Federal Program. Each section of 30 CFR Parts 942.700 – 942.846 (updated April 2, 2001) should be addressed in the Draft PEIS.

FORMAT OF DRAFT PEIS

Tennessee reviewers do not have the necessary time to review and analyze the full scope of administrative changes to the Tennessee Federal Program due to the format of the Draft PEIS. It took federal agencies four years to create the Draft PEIS. Individual Tennessee reviewers and Tennessee State agencies can not fully evaluate the Draft PEIS in a few months. Fragments of data and assessment information of the Tennessee Study Areas and the Tennessee Federal Program are in the many pages of the Draft PEIS. The extensive range and scope of the Tennessee Federal Program requires a broadcloth review by Tennesseans, as to the full impacts of the proposed federal action. The Draft PES is more of a bronco approach to assessing and evaluating the Tennessee Federal Program.

ADMINISTRATIVE COSTS

Not only should environmental concerns be address in the Draft PEIS, but also administrative impacts and costs should be included within the Draft PEIS. The number of personnel employees to oversee the proposed actions, as the preferred alternative should be included in the Draft PEIS documents. 11-9-2

TRAVEL INDUSTRY AND TOURISM IMPACTS

The Draft PEIS fails to provide detailed analyses on the direct and indirect impacts to the Tennessee tourism economy from mountaintop mining and valley fills. In a speech on Friday, July 6, 2003 in Chattanooga, Tennessee Governor Phil Bredesen pledges his support for tourism. "A $10.4 billion business, nearly 38 million visitors annually and 177,000 jobs. Those numbers are huge. Tourism is, without a doubt, a cornerstone of our state's economy." [see Attachment #4, TENNESSEAN, Saturday July 7, 2003, "*GOVERNOR BACKS CREDIT CARD CHECK*" by Bill Poovey, AP] and [see Attachment #5, "*BREDESEN OUTLINES PLANS TO EXPEND TOURISM ECONOMY", by Bob Keast, Executive Director of Tennessee Association of Resorts, Marinas and Marine Dealers]*

Today, the travel and tourism industry that has developed to serve the traveler contributes enormously to the U.S. economy. In 2000, direct traveler spending in the United States by domestic and international travelers reached $563.5 billion dollars, 5.7 percent of the nation's gross domestic product. This activity generated $100.2 billion in tax revenue for federal, state and local governments. [see Attachment #6, THE ECONOMIC IMPACT OF TRAVEL ON TENNESSEE COUNTIES 2000, by the Tennessee Department of Tourist Development.] The Draft PEIS fails to assess and analyze the affected environment (CFR 1502.15) and the environmental consequences (CFR 1502.16) of mountaintop mining and valley fills on Tennessee's Travel industry and Tourism and the loss of tax revenues for Tennessee and the coalfield counties' local governments that have gone to great lengths to develop new markets for domestic and international travelers. Mountaintop mining and valley fills sites are not vacation destinations for tourists that visit Tennessee. 11-7-2

Travelers in Tennessee produce "secondary" impacts over and above that of their original expenditures. These secondary outputs (sales) and earnings (wage and salary income) arise from "direct" and "indirect" spending. The Draft PEIS' economic sections and assessments do not address ANY of the above travel industry and Tourism impacts from mountaintop mining and valley fills in the coalfield counties of Tennessee.

The Draft PEIS fails to assess any significant cumulative impacts to Tennessee's business and economic outlook. In February 2003, AN ECONOMIC REPORT TO THE GOVERNOR OF THE STATE OF TENNESSEE by UT's Center for Business and Economic Research [see Attachment #7] provide a long-term forecast for Tennessee and projected trends. Mountaintop mining and valley fills are NOT noted in the document, or

their potential risks to Tennessee's economy. The Draft PEIS fails to give an adequate economic impact statement and to discuss Tennessee Economic trends and risk impacts from mountaintop mining and valley fills. The February 2003 report noted mining data on pages Appendix A, QF5, QF8, QF11, QF12, QF13, QF14, AF5, AF8, AF9, AF13, AF16, and pages Appendix B, QH5, QH8, QH11, QH12, QH13, QH14, AH5, AH8, AH9, AH13, AH16, The Spring 2002, TENNESSEE BUSINESS AND ECONOMIC OUTLOOK by UT's Center for Business and Economic Research [see Attachment #8] provides projected growth assessment for Tennessee's economy. The mining industry data (pages, 21, 22, 23, 24, 37, 40, 43, 44, 45, and 46) shows mining has a small economic impact on Tennessee's economy, as compare to all other businesses in Tennessee. Yet, the economic draw to travel industry and tourism sites provides long-term revenues and jobs for citizens in the coalfield counties of Tennessee. The Fall 2002, TENNESSEE BUSINESS AND ECONOMIC OUTLOOK by UT's Center for Business and Economic Research [see Attachment #9] provide additional data on pages 18 and 44 which shows more projected assessments of mining in Tennessee. In 2001, AN ANALYSIS OF AN ECONOMIC REPORT TO THE GOVERNOR OF THE STATE OF TENNESSEE, A Report to the State Funding Board, Office of Research and Education Accountability, Comptroller of the Treasury, [see Attachment #10] shows impacts on the Tennessee State budget from tax revenues and predicted levels of economic growth. The report shows no evidence that mountaintop mining and valley fills will bring an economic increase into Tennessee. The TENNESSEE ECONOMIC OVERVIEW [see Attachment #11] of October 2001 showing the index as of January 2002 fails to indicate ANY rise in revenues from mountaintop mining and valley fills. In TENNESEE POLICY RESEARCH BRIEF, Vol. 1, No21, November 2001, GENERAL ECONOMIC CHARACTERISTICS IN TENNESSEE, Examining Changes in Labor Market Conditions and Income Levels, 1990-2000 by UT's Center for Business and Economic Research clearly shows that Tennessee's labor force is developing to meet current demands for skilled jobs. (see Attachment #12) The mining industry labor force has decreased over the past ten years. (see Attachment #13) Furthermore, misleading data are associated with the Draft PEIS. The Tennessee mining industry data presented in the Draft PEIS includes information on crushed stone mining, zinc mining, Portland cement mining and construction sand mining and gravel mining. Inclusion of data for non-coal mining industries is irrelevant and does not fulfill the primary objectives of this Draft PEIS. The Draft PEIS should be revised to just show data of specific surface coal mining operations and the total number employment data. See Attachment Section for supplement information on brochures, Attachment #31)

11-7-2

IMPACTS ON TENNESSEE'S ART INDUSTRY ECONOMY

The Tennessee Arts economy provides #143.8 million into the Tennessee economy. 4,000 jobs are dependent on the nonprofit arts industry in Tennessee, and $134 million in income was generated by nonprofit arts activities in Tennessee. [see Attachment #14) The Draft PEIS fails to provide assessment and analysis on potential impacts to East Tennessee Arts Industry and activities.

TENNESSEE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT IMPACTS

SOCM has expressed concerns with the Tennessee Department of Economic Community Development, Director of Special Projects, Wilton Burnett, Jr. on the significant interdepartmental issues including state and local coordination on environmental and economic development impacts as well as a possible need to consider the impacts of potential future large-scale coal surface mining operations. [see Attachment #15] The Draft PEIS fails to analyze economic and community growth in the 22 Tennessee coalfield counties, pursuant to Draft PEIS Part II, page A-8, Part III, page Q-1 to Q- 14, Part III, pages R-3 to R-6, Part III, page T-2 and Part IV, pages I-1 to I-23. The Draft PEIS should give reviewers of the above sections of the Draft PEIS a clearer assessment and evaluation of potential significant impacts and proposed alternatives. The Draft PEIS only supplies data about the coal industry's temporary economic impacts in communities. It fails to give economic impacts data for the period after the coal industries leaves a community and moves away. These after-mining economic impacts have historically left local governments, civic leaders, and local businesses facing dramatic shortfalls in resources needed to maintain individual communities and counties. These types of "driftwood-economy" communities are historically cast aside by coal industries. The Draft PEIS should assessed and evaluated the full impacts of potential future large scale coal surface mining operations as suggested by Mr. Burnett above pursuant to the NEPA process.

11-9-2

The Draft PEIS is inadequate because:

- It fails to provide assessment of existing economic base in each of the 22 county of the Tennessee coalfield and assess the impact of mountaintop mining and valley fills upon the existing economic base.
- The Draft PEIS economic sections fail to provide individual assessments of all 22 counties in the Tennessee coalfields. In fact, many, if not all, 22 counties local political and civic and business leaders are unaware of the current proposed Draft PEIS.
- It fails to provide area development resources availability and quality and the impacts of mountaintop mining and valley fills upon these resources.
- It fails to provide assessment of impacts of mountaintop mining and valley fills to state and local government's tax base.
- It fails to provide assessment of impacts of mountaintop mining and valley fills to economic development plans and strategies to target and guide growth.
- It fails to provide assessment of impacts on business attitude toward growth and development by local leaders and citizens.
- The Draft PEIS fails to seek direct input from local county governments on economic growth plans and strategies and the impacts that mountaintop mining and valley fills projects would have on these plans and strategies. And, to provide in the Draft PEIS proposed Alternatives Section ways to offset or "minimize" these impacts.

U.S. FISH AND WILDLIFE SERVICE
STRATEGIES PLAN FOR CONSERVATION
OF FISH AND WILDLIFE SERVICE TRUST RESOURCES
IN THE LOWER TENNESSEE-CUMBERLAND ECOSYSTEM
DRAFT PEIS IMPACTS

The Draft PEIS fails to address ANY potential significant impacts of mountaintop mining and valley fills with the U.S. Fish and Wildlife Service *Strategies Plan for Conservation of Fish and Wildlife Service Trust Resources in the Lower-Tennessee-Cumberland Ecosystem*. [see Attachment #16] A number of Tennessee's coalfield counties lie within this ecosystem. Public Land use of such areas as the Big South Fork National River and Recreation Area (108,000) acres are significant concerns to Tennesseans. The Draft PEIS should be revised to address ANY conflicts between the proposed alternatives and U.S. Fish and Wildlife Service's Goals, Objectives and Strategies within the FWS document.

CONFLICTS BETWEEN U.S. ARMY CORPS OF ENGINEERS
U.S. FISH AND WILDLIFE SERVICE
AND OFFICE OF SURFACE MINING OFFICE
NWP PROGRAM

In a memorandum dated 9/21/2001, U.S. Fish and Wildlife Service expressed major concerns with proposed changes to the Corps of Engineers nationwide permit program (NWP). [see Attachment #17] The draft Programmatic Environment Impact Statement for the Nationwide Permit Program released by the Corps on July 31, 2001, identified numerous deficiencies concerning the administration of the program, including inadequate record keeping and data entry, lack of mitigation compliance efforts, poor enforcement and failure of any meaningful attempts to quantify and assess the ecological effects of the nationwide permit program on the environment. [U.S. Fish and Wildlife Service Memorandum, comment page 1] The Draft PEIS does not submit how OSM, COE, EPA and the U.S. Fish and Wildlife Service has reached a programmatic agreement, if any, addressing these major concerns.

1-13

Specific cites are major concerns with OSM's NWP and surface coal mining activities not analyzed in the Draft PEIS:

FWS' comments page 1 cites:
"The Service has determined that surface coal mines authorized under NWP 21 often result in tremendous destruction of aquatic and terrestrial habitats, and do not meet the nationwide permit standard of minimal impacts. Data collected by the Corps for calendar year 2000 shows that NWP 21 was used to authorize 306 projects that collectively destroyed almost 14,000 acres of aquatic habitat, and nearly 88 miles of stream channels. The average impact per project under NWP 21 was 45.4 acres of wetlands, and 1505 linear feet of stream channel. To date, the Corps has not completed studies to quantify or assess the effects of this permit on the Nation's natural resources, and therefore has no

scientific basis to assert that the permit will cause only minimal individual and cumulative impacts on the environment. Data gathered for the Corps/EPA draft EIS for mountaintop mining shows that the construction of valley fills has not been authorized on 583 square miles of the Appalachian region; this figure does not take into account the acreage extent of the coal mines that utilize the valley fills."

FWS' comments pages 6 to 9:

- *The Service has determined that surface coal mines often adversely affect large areas of upland and wetland habitat, and in general, do not meet the standard of having "no more than minimal" impacts on the environment.*
- *We recommend that use of this permit be suspended, and further recommend that the Corps commit to completing peer-reviewed scientific studies analyzing the effect of this permit on the environment.*
- *The Service believes that these losses do not represent a "minimal impact" on the environment.*
- *Furthermore, none of the Corps districts that use this permit have conducted a cumulative effect analysis of the use of this permit on the environment.*
- *The large average wetland and stream losses, coupled with the lack of knowledge regarding the effects of these permitted losses on the environment, demonstrates that the Corps has insufficient basis to declare that this permit has only minimal individual and cumulative effects.*
- *The individual and cumulative impacts on both aquatic and terrestrial ecosystems caused by mining projects authorized in the Appalachians via this nationwide permit are unprecedented.*
- *The Service estimates that over 900 miles of streams have already been filled.*
- *Information complied by researchers in aquatic ecology has documented that the first and second order streams being destroyed via NWP 21 are critical to the proper functioning of downstream aquatic ecosystems, including fisheries.*
- *NWP 21 authorization may affect 50 federally listed threatened or endangered species, including 7 fish and 25 mussel species.*
- *In addition, terrestrial species such as the Indiana bat and forest interior migratory birds are also adversely affected through the loss forest habitat caused by the coal mines authorized under NWP 21.*

1-13

- *Neither the notice of intent nor the July 31, 2001, draft PEIS provide a detailed description of the kinds of habitat losses associated with the issuance of individual section 404 permits.*
- *The aquatic habitat losses associated with the NWP 21 have far exceeded the Corps' predictions.*
- *The acreage impacts from NWP 21 accounted for 71 percent of all NWP impacts in calendar year 2000.*
- *Currently, NWP 21 does not have any upper limit on the amount of aquatic resources that may be impacted by the authorized project, and is therefore out of line with the acreage limits adopted for many other nationwide permits.*
- *We believe that the text of the nationwide permit should be expanded to incorporate more complete guidance to the District Engineer that describes how the determination of minimal effects should be conducted, and if feasible, the level of environmental impacts that would indicate that the upper threshold of "no more than minimal" impacts has been reached.*
- *"the need to carefully evaluate and closely monitor the effects that the use of NWP 21 permit has on the aquatic environment, particularly stream channels and riparian corridors.*
- *"we believe that coal mining projects authorized by NWP 21 routinely violate General Condition 21 of the NWP program."*
- *"The Corps of Engineers' 404 permit review will address the direct and indirect effects to the aquatic environment from the regulated fill."*
- *The Corps should properly be examined the effects of the authorized project on the entire mining site, rather than merely examining the direct and indirect effects of the footprint of the fill in jurisdictional waters of the United States.*

The Draft PEIS for mountaintop mining and valley fills should specifically document that all of the above major concerns of the US Fish and Wildlife Service with mountaintop mining and valley fills activities have been resolved by federal agencies prior to the release of the Final PEIS. More detail assessment pursuant to Tennessee coalfields by the Cookeville, Tennessee office of US Fish and Wildlife Service should be implemented into the Draft PEIS.

1-13

CONCERNS WITH EPA AND CORPS
PROPOSED REVISIONS
TO THE CLEAN WATER ACT REGULATORY DEFINITIONS
65 FEDERAL REGISTER 21292

In July 16, 2000, SOCM submitted comments of concerns with the Corps and EPA proposed revisions. [see Attachment #18). As of December 2003, SOCM has not received any reply addressing our concerns. The Draft PEIS fails to note how EPA and the Corps have resolved citizens concerns, specifically with mountaintop mining and valley fills. The range of alternatives in the Draft PEIS fails to explore different intensities and quantities of mountaintop mining and valley fills and its relationship with 65 FR 21292.

PROGRAMMATIC AGREEMENT
AMONG THE FEDERAL HIGHWAY ADMINISTRATION
THE NATIONAL PARK SERVICE
TENNESSEE STATE HISTORIC PRESERVATION OFFICE
TENNESEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
THE EASTERN BAND OF CHEROKEE INDIANS (EBCI)
THE CHEROKEE NATION OF OKLAHOMA
THE CHICKASAW NATION (CN)
THE CHOCTAW NATION OF OKLAHOMA
THE SEMINOLE NATION OF OKLAHOMA (DSNO)
THE CUMBERLAND TRAIL CONFERENCE
REGARDING IMPLEMENTATION OF THE
CUMBERLAND TRAIL TENNESSEE STATE PARK
[see Attachment #19]

The Draft PEIS fails to assess and evaluate ANY potential conflicts with mountaintop mining and valley fills and the Programmatic Agreement between the Federal Highway Administration and the above organizations and Tennessee Department of Environment and Conservation (TDEC) and Tennessee State Historic Preservation Office. The Cumberland Trail state Park is located in Anderson, Bledsoe, Campbell, Claiborne, Cumberland, Hamilton, Marion, Morgan, Rhea, Sequatchie and Scott Counties, Tennessee. The development of the Cumberland Trail State Park is a major recreational land use project in Tennessee. The Draft PEIS fails to provide analyses of alternatives to minimize potential impacts to the above Programmatic Agreement.

TRAIL Of TEARS NATIONAL HISTORIC TRAIL
DRADT COMPREHENSIVE INTERPRETIVE PLAN IMPACTS

The Draft PEIS does not assess significant impacts of mountaintop mining and valley fills to the Trail of Tears National Historic Trail in Tennessee. [see Attachment #20]

1-13

TENNESSEE PARKS AND GRENNWAYS FOUNDATION STRATEGIES CONFLICTS WITH DRAFT PEIS

The proposed Draft EIS fails to provide assessment and evaluations of alternatives to off set conflicts with TPGF's strategies: (1) actively pursue and acquire lands for public use, (2) offer small grants to others to create connections, (3) work with private landowners and accept conservation easements, and (4) conduct educational sessions to stimulate conservation initiatives by others. [see Attachment #21] 1-13

RARE SPECIES IN THE 22 COALFIELD COUNTIES Of TENNESSEE

The Draft PEIS does not provide assessment or analyses data on alternatives and efforts to minimize potential impacts to rare species found in the coalfield counties in Tennessee. [see Attachment #22] The lack of complete assessment and analysis of the significant risk factors posed by mountaintop mining and valley fills and mountaintop removal and cross ridge mining operations impacts to rare species and their habitats in Tennessee's coalfield watersheds leaves the Draft PEIS Section III and IV and the Draft PEIS Appendix F (see Attachment 22 A) fails adequately assess Tennessee's Rare species that are listed by the Tennessee Division of Natural Heritage.

Based on our review of positions published by the Tennessee Natural Heritage (TNH), Tennessee Wildlife Resource Agency (TWRA), and U.S. Fish and Wildlife Service Tennessee/Kentucky Field Office (FWS), the Draft PEIS descriptions of ecological resources, including Federally threatened and endangered species are not comprehensive and do not reflect the current knowledge of ecological resources present in the 22 coalfield counties of Tennessee. The proposed Programmatic Environmental Impact Statement does not reflect past U.S. Fish and Wildlife Service consultations for a number of OSM, COE and DOE projects in the 22 coalfield region in Tennessee. Examples include the NEPA Programmatic Environmental Assessment (EA) for the U.S. Department of Energy, Oak Ridge Operations Implementation of a Comprehensive Management Program for the Storage, Transportation, and Disposition of Potentially Re-use Uranium Materials (DOE-EA-1393), The Office of Surface Mining Reclamation and Enforcement's individual EISs for Frozen Head State Park and Natural Area, Fall Creek Falls State Park and Natural Area, North Chickamauga, Rock Creek and Fern Lake, and U.S. Army Corps of Engineers' Spencer Artillery Range and the National Historic Trail of Tears Historical Trail projects. The Draft PEIS fails to assess, analyze and submit alternatives to minimize direct and indirect cumulative impacts to rare species and their habitats. It is important that the Draft PEIS answer the concerns surrounding significant impacts to intermitted and perennial streams. 8-3-2

TENNESSEE'S BIOASSESSMENT PROGRAM

The Draft PEIS fails to assess potential impacts to the State of Tennessee's Bioassessment Program. [see Attachment #23] The Tennessee Division of Water Pollution Control has an extensive bioassessment program that has not been addressed in the Draft PEIS.

APPLICANT VIOLATOR SYSTEM (AVS)

The Draft PEIS fails to address any potential impacts to the AVS program from the proposed federal action. How will the proposed changes impact the AVS program? (see Attachment #24)

TENNESSEE AML PROGRAM

The Draft PEIS fails to identify and assess any significant impacts to SOCM and Governor Bredesen joint efforts to address the Abandoned Mine Lands problem in Tennessee. (see Attachment #25) 1-13

TENNESSEE RESTOCKING ELK PROGRAM

The Draft PEIS fails to address in detail how the proposed federal action will impact Tennessee efforts to restock eastern Tennessee with Elk. (see Attachment #26)

TENNESSEE FEDERAL PRPGRAM (OSM) REFORESTATION AND WILDLIFE HABITAT ENHANCEMENT INITIATIVE

The Draft PEIS fails to address any significant impacts to the OSM's Reforestation and Wildlife Habitat Enhancement Initiative under the Tennessee Federal Program. (see Attachment #27)

DRAFT PEIS APPENDIX C CONCERNS

The Draft PEIS Regional Setting Supporting information (see Attachment #28) for Tennessee does not use up-to-date information on the regional changes since 1985. The Tennessee Division of Groundwater programs and regulations are not address. It is important to address concerns raised regarding any Programmatic EIS approval by federal agencies that do not look at impact assessment of mountaintop mining and valley fills and Mountaintop Removal mining and Cross Ridge Mining in the Tennessee coalfields. ***"Mountaintop Removal Mining: An Environmental Impact Assessment (EIA) Scoping Exercise and Impact Assessment of Mining Activities on Aquatic Resources. By Jeff Lee Hansbarger,*** (see Attachment #29) 5-2-4

IMPACTS TO MET TENNESSEE'S STANDARDS FOR DRINKING WATER AND SURFACE WATER

The State of Tennessee's Controller of the Treasury, Division of State Audit issued a Performance Audit on "Water Quality" on May 2001. The Draft Programmatic EIS fails to provide any review agreement with the State of Tennessee and the other federal agencies to assess the impacts of the proposed federal action on Tennessee's availability to meet its high water quality standards. (see Attachment #30) Tennessee Division of Water Pollution Control has invested a large amount of its budget's dollars and employee's time to develop a waste water pollution NPDES permit scheme to meet federal standards.

The Draft PEIS fails to assess how federal agencies and the State of Tennessee will be meet the high standards within the Tennessee Safe Drinking Water Act of 1983. The Draft PEIS does not provide any documentation from the Tennessee Division of Groundwater Protection, the Division of Groundwater Protection, the Division of Water Supply, the U.S. Army Corps of Engineers – Nashville District and EPA Region 4 office on potential mountaintop mining, mountaintop removal mining and cross ridge mining to Tennessee's water quality programs.

1-13

SOCM's SPECIFIC CONCERNS WITHIN THE DRAFT PEIS

DRAFT PEIS, PART I, PURPOSE AND NEED, pages I-1 to I-21

COMMENTS:

The purpose of this EIS is:

"to consider developing agency policies, guidance, and coordinated agency decision-making process to minimize, to the maximum extent practicable, the adverse environmental effects to waters of the United States and to fish and wildlife resources affected by mountaintop mining operations, and to environmental resources that could be affected the size and location of excess spoil sites in valley fills." [64 FR 5778]

This a programmatic EIS, according to federal regulations (40 CFR 1502.4(b)), preparation of a programmatic EIS serves as a valuable and necessary analysis of the affected environment and the potential cumulative impacts of the reasonably foreseeable actions under that program or within that geographic area (46 CFR 18026, 51 FR 15618). A programmatic EIS facilitates tiering to an impact assessment of narrower scope to eliminate repetitive discussions of the same issues (30 CFR 1500.4(l)).

The Draft PEIS should state:

- How did federal agencies' policies, guidance, and decision making process work in Tennessee prior to the December 1998 settlement agreement?
- The outcome of the developing agency policies?
- How each federal agency will coordinate to achieve developing policies?
- How successful will be the developing agency policies?
- Describe the successes and challenges developing such agency policies?
- Describe key lessons learned?
- How federal agencies short-term outcomes affect the long-term goals identified in the Draft PEIS?
- How federal agencies will define and measure success of proposed developing policies?
- How federal agencies will monitor the long-term results of proposed developing policies?
- How federal agencies will use and share the results of proposed developing policies, internally and externally?
- How will federal agencies improve its process in the future?

1-13

Pursuant to the *Tennessee Water Quality Control Act of 1977*and the *Federal Clean Water Act*, and appropriate Federal and state regulations, SOCM views the Draft PEIS proposed Alternatives (all three) to consider new or revised program guidance, policies, or regulations to minimize, to the maximum extent practicable, and the adverse environmental effects of mountaintop mining/valley fills operations will harm and put at risk the human environment in Tennessee's watersheds. Pursuant to the Federal Register Notice of February 5, 1999, no public scoping hearings have been conducted in Tennessee, no public meetings have been conducted in Tennessee, and no meetings with citizens groups have been conducted in Tennessee to address any proposals relating to the Draft PEIS for mountaintop mining and valley fills. However the Draft EIS case "Study Area" shows that a "closed circle" of OSM-Knoxville Staff and TDEC's Environmental Policy Office have exchanged communications about the Draft PEIS. This lack of the NEPA scoping process (Sec 1501.7) voids the creditability and accuress of the Tennessee's data used for the Draft PEIS.

The proposed Draft PEIS fails to consider its impacts on the watersheds located in the Tennessee coalfields. The proposed Draft PEIS will have significant impacts on the

classified uses of the receiving waters and contain limitations on the amount of pollutant discharges and/or other conditions and will harm the human environment in the Appalachian study area. The Draft PEIS fails to address its impacts on TDEC's watershed management approach programs. The watershed approach is TDEC's key program at restoring water quality to the state's impaired waters.

While Tennessee's water resources are clean enough for most designated uses, there are some significantly impaired rivers and streams in the coalfields of Tennessee. The Draft PEIS fails to consider its long-term cumulative impacts of mountaintop mining upon these rivers and streams. TDEC's watershed approach programs considers the entire river basins of the coalfields of Tennessee. While the Draft PEIS addresses only the acreage surrounding a mountaintop mining sites, it fails to gather and document data on impacts on the complete watershed. 1-13

Much of the Draft PEIS sections are written in terms that the average citizens can not understand. The scientific terminology of mountaintop mining makes it hard for citizens to fully understand the terms and concepts with the Draft PEIS. SOCM finds that many of the graphs and other figures are not clear and understandable to the reader.

The Tennessee Federal Program is the only such federal program in Appalachia. Tennessee was the only state represented in the Draft PEIS that was regulated by OSM. NPDES and ARAP permits are regulated by the Tennessee Division of Water Pollution Control – Mining Section in Knoxville, Tennessee. The Draft PEIS is unclear as to Tennessee State agencies' roles if any alternatives to existing regulatory provisions and procedures are approval.

PART I. PURPOSE AND NEED, Section E. STUDY AREA, page I-5

COMMENTS:

Complete Tennessee Study Area data are missing from the Draft PEIS. The lack of complete information on the Study Area leaves the reader(s) to question if the sections of the Draft PEIS: Part II. Alternatives, and Part III. Affected Environment and Consequences of MTM/VF, and Part IV. Environmental Consequences of the Alternatives Analyzed are accurate and credible in assessing the potential significant cumulative impacts in Tennessee from mountaintop mining and valley fills.

PART I. PURPOSE AND NEED, Section G. SCOPING AND PUBLIC INVOLVMENT, pages I-11 to I-12.

COMMENTS:

SOCM finds that the general public in Tennessee is unaware of the proposed federal action and the Draft PEIS comment period due to multiple failures by the Department of the Interior to inform the public of this impending federal action. Neither OSM-Knoxville 3-2

nor other federal agencies had any scoping hearings in Tennessee. Neither OSM-Knoxville nor other federal agencies have held any public meetings to discuss the proposed federal action. Neither has there been sufficient communication through established local and state media. SOCM finds that some Tennessee State agencies do not even know about the proposed federal action. SOCM finds that some counties are unaware of the proposed federal action. SOCM finds that the Draft PEIS does not listed all state and county government officials that should have been contacted for scoping input prior to the released of the Draft PEIS. In fact, 11 of the 22 counties have not been sent copies of the Draft PEIS. Overton County Library has not received a copy of the Draft PEIS. White, Warren, Van Buren, Hamilton, Franklin, Coffee, Rhea, Roane, Pickett, and Putnam counties have not received a copy of the Draft PEIS. SOCM finds that county's Department of Environment and Conservation, usually the office of county executives, have not been notified about the Draft PEIS. This lack of communication with the directly affected public does not meet basic NEPA requirements. 3-4 3-2 3-1

DRAFT PEIS, PART I, PURPOSE AND NEED, Section I (G)(1)(a) Public Meetings and (1)(b) - Meeting with Citizen Groups, page I-12:

COMMENTS:

The Draft PEIS does not include concerns from Tennessee stakeholders. In fact, SOCM cannot find any records of meetings in Tennessee, or out reach meetings, conferences, informal hearings, or letters from federal agencies: EPA, OSM-Knoxville Field Office, FWS, or COE seeking input on the proposed mountaintop mining and valley fills Draft PEIS. 3-2

EPA, OSM, FWS and COE have not complied with NEPA requirements to seek scoping information or input from Tennessee's stakeholders. The general public has not seen any information from the media, local and state political leaders, the offices of US Senators and Representatives, or the Governor's office on the proposed federal action. Stakeholders are individuals and organizations that have an interest in identifying water quality problems and in monitoring the effectiveness of these proposed solutions over time as it relates to mountaintop mining and valley fills. 10 of the 22 coalfield counties in Tennessee have not received a copy of proposed Draft REIS. The make up the Programmatic EIS review committee should consist of:

Ecologist
Physicist
Historians
Archaeologist
Environmental lawyers
Environmental chemist
Wildlife botanist
Hydrologist
Socialist
Environmental economist

Marine scientist
Health expect
Geologist
Environmental engineer

Missing from the Draft PEIS are such Tennessee stakeholders as: [not identified in the Draft PEIS]

- Individuals citizens who live in the coalfields of Tennessee.
- Municipal and county governments.
- Local councils of governments.
- Local soil and water conservation commissions or districts.
- County boards of commissioners.
- Chambers if Commerce organizations.
- Local and national citizens action groups.
- Local industries.
- Water suppliers.
- State ground water agency.
- Native American groups.
- Local Electric Cooperatives.
- Friends groups.
- Tennessee Wildlife Resource Foundation.
- Tennessee Wildlife Resource Agency.
- County Historical Societies.
- Tennessee fisheries.
- Recreational Clubs.
- Wildflowers Clubs.
- Bird Watchers organizations.
- Statewide Biking Clubs.
- Statewide Fishing Groups.
- Statewide Hunting Clubs.
- Ducks Unlimited organization.
- Tennessee Rivers organizations.
- Tennessee Department of Tourism.
- Tennessee Department of Air Pollution.
- Tennessee Department of Agriculture.
- Tennessee Arts Commission.
- Tennessee Department of Economic and Community Development.
- Tennessee State Board of Education.
- Tennessee Department of Forestry.
- Tennessee Emergency Communication Board.
- Tennessee Emergency Management Agency. (TEMA)
- Tennessee Board of Equalization.
- Tennessee Film, Music and Entertainment Commission.

2-1

- Tennessee Fire Service and Codes Enforcement Academy.
- Tennessee Geographic Information System (GIS).
- Tennessee Department of Health.
- Tennessee Historical Commission.
- Tennessee Office of Homeland Security.
- Tennessee Human Services.
- Tennessee Department of Labor and Workforce Development.
- Tennessee Department of Solid Waste.
- Tennessee Department of State Parks and Natural Areas.
- Tennessee Wildlife Management Area officials.
- Tennessee United States Senators and Representatives.
- Individual coalfield counties' Department of Environment and Conservation, usually located in the County Executive's office.
- Individual statewide organizations: SOCM, TEC, TCWP, TCWN, TWRA, FFA, etc.

2-3

The Draft PEIS should address the development of a programmatic process designed to actively and meaningfully obtain public input on the content and nature of the data and analyses necessary to define alternatives at the program level and to identify potential impacts to the physical and human environment. The Draft PEIS does not present procedures to address programmatic process with current state and federal mountaintop mining and valley fills permitting programs that do not include environmentally sensitive planning. The current review process in coalfield states should attempt to anticipate and prevent mine-related problems rather than to react to them.

3-3

DRAFT PEIS, PART I, SCOPING AND PUBLIC INVOLVEMENT, SECTION (G)(2) ISSUES RASIED DURING THE SCOPING PROCESS – [pages I-12 to I21]

COMMENTS

Since no public scoping process was carried out in Tennessee, the following Draft PEIS sections should be revised to reflect evaluation and assessment of the Tennessee Federal Program and its Subchapter T – Programs for the conduct of Surface Mining Operations within Each State Part 942 –Tennessee, Sections 942.20 to 942.955.

The revised PEIS sections should reflect how the Tennessee Federal Program has assessed, evaluated and addressed the following: [before SOCM can give comments on mountaintop mining and valley fills]

3-1

(a) Direct Stream Loss, page I-12
(b) Stream Impairment, I-13
(c) Fill Minimization, page I-13
(d) Assessing and Mitigating Stream Habitat and Aquatic Functions, page II-14
(e) Cumulative Impacts, page I-15
(f) Deforestation, page I-15

(g) Blasting, page I-16:
(h) Air Quality, page I-17
(i) Flooding, page I-17
(j) Land Use, page I-18
(k) Threatened and Endangered Species, page I-18
(l) Scenery and Culturally Significant Landscapes, Page I-19
(m) Exotic and Invasive Species, page I-10
(n) Valley Fill Stability, page I-20
(o) Economics, page I-20
(p) Environmental Justice, page I-21
(q) Government Efficiency, page I-21

COMMENTS:

Executive Order 12898 was designed to focus the attention of federal agencies on the human health and environmental conditions in minority communities and low-income communities. It requires EPA, OSM, COE and FWS to adopt strategies to address environmental justice concerns within the context of agency operations, within the proposed Draft PEIS on Mountaintop Mining and Valley Fills. This document fails to provide the detailed guidance necessary to incorporate environmental justice goals and list actions that federal agencies would take to incorporate environmental justice into their missions. Small low-income communities are dismissively characterized in the Draft PEIS as "minor" impacts areas. Collectively, the affected rural communities of Kentucky, West Virginia, Virginia and Tennessee represent not only a large regional area, but also values basic to the heart and soul of the United States. The goal of "Environmental Justice" is for "fair treatment" of each unique small community of Appalachia. It is not to shift risks among populations, but to identify potential disproportionately high and adverse effects and identify alternatives that may mitigate these impacts. The Draft PEIS analyses makes inappropriate assumptions regarding cumulative effects to these communities. The Draft PEIS fails to exhaust all applicable analyses inside federal agencies and to incorporate the best data currently available from outside resources. 10-7-2

The Draft PEIS fails to identify:

All indirect impacts [40 CFR 1502.16(b)(, 1508.8(b) 1508.9]

- growth effects
- population density
- changes in infrastructure
- growth rate
- air
- water
- ecosystems
- sacred sites

DRAFT PEIS, PART II, ALTERNATIVES, pages II A-1 to II D-8

COMMENTS:

SOCM does support any of the proposed alternatives. Has the "no-action" alternative been fully considered by federal agencies? Many environmental impacts have been dismissed or understated by federal agencies. These federal agencies only address their responsibilities within their agencies while leaving the NEPA's "hard-look" to other agencies to address. There are important data gaps within the Draft PEIS. The "worse-case" analysis was not fully addressed within the Draft PEIS. The Draft PEIS is inadequate and does not justify the alleged "Purpose and Need" requirement of NEPA to conduct mountaintop mining and valley fills in West Virginia, Kentucky, Virginia and Tennessee. The feasible alternatives to the proposed federal action are not fully considered within the Draft PEIS. The Draft PEIS proposed mitigation plans are not adequate to address potential direct and indirect impacts. Again, the Draft PEIS is unclear to Tennessee State agencies' roles if any alternatives are approved.

SOCM expresses its concerns with the proposed three alternatives if each one weakens Tennessee's more restrictive standards, limitations, and requirements of its Water Quality Control's regulations and its NPDES and ARAP permitting programs. Pursuant to passed law cases and court decisions that give states the right to set effluent limitations that are more stringent than federal requirements. The 4th Circuit Court stated that the "*NPDES permit program serves at least two purposes: it ensure that discharges are subjected to the scrutiny of the application process…; and it enables specification of discharge limitations, including more stringent state guidelines, for all effluent point sources.*" [53 FR 20764 and 54 FR 23868] 1-5

Tennessee administers its own NPDES program. According to EPA regulation 40 CFR 122.44(d) a state can set NPDES water quality standards which are more stringent than federal standards. Here lies the conflict with the proposed three alternatives within the proposed federal action regarding mountaintop mining and valley fills in Tennessee. In some permitting applications, not only would Tennessee have to revise its current NPDES permitting program, it would have to lower its current stringent standards and requirements.

The State of Tennessee would have to revises its current laws; Tennessee Water Quality Control Act, its Tennessee Code Annotated 69-3-101 to 69-3-137, and its Tennessee Safe Drinking Water Act of 1983, TCA 68-221-701 to 68-221-720 to comply with the lower standards within the proposed three alternatives outlined in the Draft PEIS.

The Office of Surface Mining Reclamation and Enforcement would need to revise it own Tennessee Federal Program, 30 CFR Subchapter T, Part 942 – Tennessee to meet the weaker proposed discharge and valley fills standards. The three alternatives raise concerns with the abilities of the State of Tennessee to "*implement, administer and enforce all applicable requirements consistent with 30 CFR Subchapter T, Part 942.*" [see 30 CFR Sec. 732.15(b)(1)] The Draft PEIS does not provide a cost assessment review to

implement any of three alternatives. The proposed Draft PEIS places the burden on Tennessee to adopt "*irrelevant and inapplicable standards.*"

The Draft PEIS fails to identify the following sections in assessing how the Tennessee Federal Programs compare to other programs. The Tennessee Federal Program should already be carrying out much of the suggestions in following the alternatives sections:

PART II, Alternatives, Section A. (1) Programmatic Review, page II. A-1
PART II, Alternatives, Section A. (2) Technical Studies, page II. A-2
PART II, Alternatives, Section A. (3)(a)(b)(c)(d)(e) and (f), pages II. A-5 to II. A-8 does not fully cover the disposition of the issues.
PART II, Alternatives, Section (B)(1) Overview of the Alternatives.
PART II, Alternatives, Section (B)(2) Specific Actions Proposed by the Alternatives.
PART II, Alternatives, Section (B)(3) Regulatory and Environmental Benefits of the Alternatives.
PART II, Alternatives, Section (C)(1) Government Efficiency; Sub-issue; Coordinated Decision Making.
PART II, Alternatives, Section (C)(2) Government Efficiency, Sub-issue: Consistent/Compatible Definition for Stream Characteristics and Analyses.
PART II, Alternatives, Section (C)(3) Direct Stream Loss.
PART II, Alternatives, Section (C)(4) Stream Impairment.
PART II, Alternatives, Section (C)(5) Fill Minimization.
PART II, Alternatives, Section (C)(6) Assessing and Mitigating Stream Habitat and Aquatic Functions. 1-13
PART II, Alternatives, Section (C)(7) Cumulative Impacts.
PART II, Alternatives, Section (C)(8) Deforestation.
PART II, Alternatives, Section (C)(9) Air Quality.
PART II, Alternatives, Section (C)(10) Flooding.
PART II, Alternatives, Section (C)(11) Threatened and Endangered Species.
PART II, Alternatives, Section (D)(1) Restricting Individual Valley Fills.
PART II, Alternatives, Section (D)(2) Fill Restrictions Based on Identification of High-Value Aquatic Resources.
PART II, Alternatives, Section (D)(3) Fill Production.
PART II, Alternatives, Section (D)(4) Summary of Fill Restriction Alternatives.

ALTENATIVES 2: [the Preferred Alternative].

COMMENT:

SOCM questions the Draft PEIS lack of assessment on the role of states and citizens during the decisionmaking process outlined in the Preferred Alternative. NEPA requires that all indirect impacts be addressed in the Draft PEIS. Without question the role of states and citizens in participating during the decision making process as it relates to preferred alternative should be stated in the Draft PEIS. All alternatives in the Draft PEIS are inadequate. Each fails to assess the full direct, indirect and cumulative damages to

our nation's watersheds. The preferred alternative does not consider the log-term impacts for Mountaintop Removal mining and Cross Ridge mining in Tennessee.

DRAFT PEIS, PART III, AFFECTED ENVIRONMENT AND CONSEQUENCES OF MTM/VF, pages III A-1 to III W-6

COMMENTS:

Pages III, A-1 to III, W-6, describes the affected environmental and consequences of mountaintop mining and valley fills in the states of Kentucky, West Virginia, and Virginia. It does not provide the necessary science and rational framework which to identify and evaluate the impacts occurring from mountaintop "Removal" mining in Tennessee. In fact, SOCM knows of no SMCRA permits being approved for mountaintop "removal" mining (by definition) in Tennessee during the Draft PEIS study area project by OSM-Knoxville. The long-term impacts and its consequences in the coalfields of Tennessee are not documented in the "Study Area" which is described in Part III of the Draft PEIS.

Much of the data in the Draft PEIS for Tennessee is lacking to provide the needed scientific information for long-term impacts. Landscape disturbance affects the abundance and diversity of fish and game resources, drinking water quality and quantity, and the character of human communities. Federal and State agency management of landscape changes are often "after the fact". Federal agencies should gather more on gathering data over a longer period than the data in the Draft PEIS. Tennessee's data for the Draft PEIS from the "Study Area" of known violators of current regulation requirements. 4-2

The Draft PEIS, PART III fails to:

- Provide long-term impact data on the human environment impacts
- Provide long-term impacts data on assessments of mountaintop mining activities in Tennessee.
- Provide specific impacts arising from mountaintop mining in Tennessee.
- Provide investigation data from past EISs used to assess mountaintop mining activities.
- Provide direct and indirect aquatic resource impacts, along with documentation and validity data.
- Provide literature review of technical reports, newspaper articles, books, current journal articles, as well as the creation of impacts matrices information on mountaintop mining and valley fills.
- Provide adequate assessment and monitoring data from mountaintop mining operations.
- Provide aquatic impacts data from past mountaintop mining activities.
- Provide data to show the usefulness of mountaintop mining techniques for future mining activities in Tennessee.
- Provide data on the results from physical alternations of streams and aquatic resources, or even its impacts on aquatic life in streams.

- Provide assessments comparing the impacts from other types of surface coal mining operations to impacts from mountaintop mining activities, on-site and off-site.
- Provide data on the effectiveness and validity of current mountaintop mining techniques to assess current, if any, practices in Tennessee.
- Provide data on the impacts of mountaintop mining on the aquatic and woodland ecosystems in Tennessee.
- Provide scoping information from Tennessee State agencies other than TDEC.
- Provide more in-depth scientific analysis database on potential impacts in Tennessee coalfields.
- Provide additional scoping data from outside specialists and resources that have the expertise on mountaintop mining impacts.
- Provide accurate and up-to-date information to assess future potential impacts.
- Provide information on the problems associated with the Tennessee Study Area data for each site listed in the Appendix: **DESCRIPTIONS OF GIS MINE POLYGONS IN THE CUMULATIVE IMPACT STUDY: TENNESSEE, pages 1-3.**
- Provide information on the cost to implement changes to 30 CFR 942.20 to 942.955 for each alternative being proposed in the Draft PEIS.
- Provide performance standards impacts to groundwater.
- Provide assessment for changes to 30 CFR 942.824, Special Performance Standards – Mountaintop mining of the Tennessee Federal Program.
- Provide effectiveness of mitigation and reclamation measures for mountaintop mining and valley fills program
- Provide post land use data to assess impacts.
- Provide forestry reclamation approaches to be used after mountaintop mining operations
- Provide data on Karst Systems in Tennessee.
- Provide assessment data on the three alternatives' effects on 30 CFR 942.700(a)(b)(c)(d).

The Draft EIS following sections does not cover all 22 counties in the Tennessee coalfields. The Draft PEIS is inadequate without complete data of all 22 counties covering Part III A to Part III W. The Draft PEIS should be revises to reflect this information. Federal agencies are required to integrate social science and economic information in the preparation of informed, sustainable land use planning decisions. Federal agencies are require under Section 102 of NEPA to *"insure the integrated use of the natural and social sciences… in planing and decision making."*

DRAFT PEIS, PART III, A Description of Study Area
DRAFT PEIS, PART III, B Physical Setting
DRAFT PEIS, PART III, C Appalachian Aquatic Systems
DRAFT PEIS, PART III, D Impact Producing Factors to Headwater Systems from Mountaintop Mining
DRAFT PEIS, PART III, E Coal Mine Drainage from Surface Mining
DRAFT PEIS, PART III, F Appalachian Forest Communities
DRAFT PEIS, PART III, G Relationships of Mountaintop Mining to Surface Runoff Quantity and Flooding

4-2

DRAFT PEIS, PART III, H Relationship of Mountaintop Mining to Groundwater Quality and Quantity
DRAFT PEIS, PART III, I Overview of Appalachian Region Coal Mining Methods
DRAFT PEIS, PART III, J MTM/VF Characteristics
DRAFT PEIS, PART III, K Excess Spoil Disposal
DRAFT PEIS, PART III, L Mine feasibility Evaluation and Planning
DRAFT PEIS, PART III, M Coal Distribution and Markets
DRAFT PEIS, PART III, N Past and Current Mining in the Study Area.
DRAFT PEIS, PART III, O The Scope of remaining Surface-Minable Coal in the Study Area.
DRAFT PEIS, PART III, P Demographic Conditions
DRAFT PEIS, PART III, Q Economic Conditions
DRAFT PEIS, PART III, R Land Use and Potential Development
DRAFT PEIS, PART III, S Historic and Archaeological Resources
DRAFT PEIS, PART III, T Economic Importance of existing Landscape and Environmental Quality
DRAFT PEIS, PART III, U Social and Cultural Connections to Coal Mining and the Natural Environment
DRAFT PEIS, PART III, V Relationship of Surface Mining and Air Quality
DRAFT PEIS, PART III, W Blasting and the Local Community

COMMENT:

4-2

The above sections does note some data on the Tennessee Federal Program on pages:

Part III B-3, Part III K-26, Part III K-35, Part III K-42, Part III K-51, Part III N-5, Part III T-2, but to specifically address mountaintop mining and valley fills, all above sections should have information about the Tennessee Federal Program.

DRAFT PEIS, PART IV, ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES ANALYZED, pages IV A-1 to IV K-1

COMMENTS:

The Draft PEIS is not accurate in describing and quantifying the extent and the nature of direct, secondary, and cumulative impacts associated with mountaintop mining and valley fills in Tennessee. The Draft PEIS fails to provide a coherent, organized agenda or schedule of commitments, proposal instruments and/or activities that elaborate and implement mountaintop mining and valley fills policy. It is in conflict with EPA's vision for watershed approaches. The watershed approach is a coordinating framework for environmental management that focuses public and private sectors efforts to address the highest priority problems within hydrologically-defined geographic areas, taking into consideration both ground and surface's water flow. The Draft PEIS is in conflict with Tennessee Division of Water Pollution's watershed approach policy and Tennessee/EPA

Water Agreement. Much like EPA's watershed approach policy, Tennessee's has developed and implemented watershed approaches that do not address large-scale mountaintop mining and valley fills operations. The proposed federal action would require Tennessee to redesign its watershed approach policies and implement new costly strategies.

While the Draft PEIS does address some specific problems associated with on-site mountaintop mining and valley fills impacts, it fails to:

- Assess high priority problems associated with off-site impacts to the adjacent and surrounding watersheds, ecologically diverse hills and hollows, streams, and waterways.
- Assess impacts on future timber growth in the area.
- Assess the damage to the biological integrity of the study area.
- Assess functions lost by filling of headwater streams or the indirect to segments of streams from filling upstream portions.
- Assess biological needs of the aquatic ecosystem downstream.
- Assess operations that may severely impact biodiversity and environmental sustainability. 4-2
- Cumulative impacts from changes in topography and land cover results in the elimination of large tracts of habitats for native forest-interior species, the invasion of exotic plant, animal, and insect species, and micro-climatic changed.
- The scientific and analytic basis for comparisons lack complete and accurate information.
- Hollow fills associated with Mountaintop Removal mining that eliminates intermittent or ephemeral streams.

The following sections fail to provide assessment and evaluation of the Tennessee Federal Program relating to mountaintop mining and valley fills per Alternatives noted in the Draft PEIS:

DRAFT PEIS, PART IV A Introduction
DRAFT PEIS, PART IV B Aquatic Resources
DRAFT PEIS, PART IV C Soils and Vegetation
DRAFT PEIS, PART IV D Fish and Wildlife
DRAFT PEIS, PART IV E Air Quality

DRAFT PEIS, PART IV F Energy, Natural, or Depletable Resources Requirements
DRAFT PEIS, PART IV G Cultural, Historic, and Visual Resources
DRAFT PEIS, PART IV H Social Conditions
DRAFT PEIS, PART IV I Economic Conditions
DRAFT PEIS, PART IV J Recreation
DRAFT PEIS, PART IV K Environmental Justice

COMMENT:

Each of the above sections should be revised to include information how the Tennessee Federal Program has implemented its program in relating to mountaintop mining and valley fills.

APPENDIX COMMENTS 4-2

APPENDIX A Ideas for Government Action
APPENDIX B Programmatic Reviews
APPENDIX C – REGIONAL SETTING SUPPORTING INFORMATION, pages, C-3, C-17, C-39 to C-41;

COMMENT:

The quoted reference data is old data that should be updated to reflect new research information and discoveries over the last ten years.

APPENDIX D Regional Setting Supporting Information
APPENDIX E Terrestrial Technical Studies
APPENDIX F – FEDERALLY LISTED T & E CANDIDATE AND SPECIES OF CONCERN, 22 pages.

COMMENT:

The draft PEIS fails to address concerns with cumulative impacts in all 22 counties. The proposed federal action would allow the potential opening of sensitive watersheds to serious cumulative impacts to state and federal species. The NEPA "bigger picture" assessment is missing from the Draft PEIS as it relates to Tennessee's Division of Natural Heritage's state and federal listings in all (22) coalfield counties. The Draft PEIS fails to provide to Tennessee reviewers a clear picture of possible state and federal species put in harms way within the 22 county coalfields of Tennessee. 9-2-2

APPENDIX G Socioeconomic Technical Studies
APPENDIX H Engineering Technical Studies
APPENDIX I Cumulative Impact Study
APPENDIX J AOC+Policy
APPENDIX K Flooding Analysis Guidelines
APPENDIX L Cumulative Guidance

AOC assessment concerns:

COMMENTS:

The following was used to assess "state run programs" concerns relating to AOC. However, Tennessee's concerns are not specifically addressed since Tennessee was already under a federal program. Many of the below suggestions should have already been in used by the Tennessee Federal Program. After short term analyzing of the information gathered during the Draft PEIS process, the following conclusions and recommendations were developed by OSM to address state run SMCRA programs.

- *OSM's own oversight evaluation indicates an industry trend of proposing to return mine sites to AOC with no AOC variance.*

- *Also, the evaluation revealed that policies or procedures used for determining when a mining operation's reclamation plan satisfies requirements established for AOC are either applied inconsistently or are overly broad, resulting in varied interpretations of what constitutes AOC.*

- *A major source of confusion over what qualifies as mountaintop mining operations, which require a variance from AOC, arises from OSMs method of classifying, in its permitting database, various mining methods as mountaintop operations, regardless of whether an AOC variance has been obtained or not. Although the tracking of mountaintop operations and associated waivers is not required by State or Federal law, OSM has made changes to its database and is in the process of reviewing all current surface mining permits to clearly identify which sites should be classified as mountaintop operations.*

- *OSM identified three significant areas in which the language of the approved State program differs from that of SMCRA and the Federal regulations. These language differences, which may have contributed to some of the other problems addressed in this report, relate to the following areas:*

  (1) documentation of the need and the market for the designated postmining land use,

  (2) use of "woodlands" as an approved postmining land use, and

  (3) allowing "public use" instead of "public facility (including recreational facilities) use" as a postmining land use.

- *OSM has not determined the extent to which the above differences have contributed to inadequate documentation justifying an AOC variance and non-approved postmining land uses.*

- *Future discussions with WVDEP will identify the source of the problems and, if they are related to the approved program language, OSM will provide the State a notification requesting that the language be changed to correct the deficiencies. If, however, the problems are merely the results of inadequate implementation of the current State program requirement, OSM will work with WVDEP to put in place procedural revisions to prevent further occurrences.*

- *The oversight evaluation found that mountaintop permits have been issued with postmining and uses "forestry" and "fish and wildlife habitat" not authorized in the approved State program, although a program amendment to authorize "fish and wildlife habitat and recreation lands" is pending before OSM.*

- *OSM has requested that WVDEP immediately discontinue approving permits for unauthorized land uses, and that, in addition to those permits OSM examined in preparing this report, it review other permits currently in effect for similar problems. For all current mountaintop-removal permits already issued that have not properly applied the postmining land use provisions of the approved State program, OSM is requesting that WVDEP work with operators to ensure, where practicable, final reclamation achieves a postmining land use authorized by the program. OSM recognizes that the pending program amendment is intended to resolve some of these concerns and, with the release of this report, OSM plans to reopen the comment period on the State's proposed amendment concerning "fish and wildlife habitat and recreation lands." A notice will be published in the Federal Register, and comments will be solicited from the public.*

- *OSM found that all of the mountaintop-removal permits with AOC variances lacked at least some of the documentation required for approving the designated postmining land use. OSM has requested VDEP to initiate an immediate review of its permit application and permitting process to assure that the program requirements are being fully implemented. OSM is not proposing any corrective action for previously issued permits.*

- *In the review, OSM found four situations where steep-slope AOC variances had been granted, but where mountaintop-removal AOC variances would have been more appropriate because the entire coal seam or seams had been removed. OSM requests that WVDEP implement proper classification procedures for operations seeking AOC variances and review the appropriateness of AOC variances issued to steep-slope operations, taking corrective actions on existing permits, where practicable.*

- *The approved West Virginia program does not limit approval of an AOC variance for a steep- slope mine to the specific postmining land uses that are specified in SMCRA. OSM has requested that WVDEP submit an amendment to correct this deficiency, and WVDEP has filed a proposed rule with the West Virginia Legislative Rulemaking Review Committee to address the required amendment. OSM requests that WVDEP consider whether it is appropriate to issue any steep-slope AOC variances until an amendment is approved.*

COMMENTS:

Does Virginia, Kentucky, and West Virginia currently use appropriate standards in evaluating whether a particular postmining land configuration constitutes a return to AOC? In Bragg v. Robertson, Memorandum opinion and Order of October 20, 1999, Judge Haden clearly points out that Director of West Virginia Department of Environmental Protection was enjoined from approving further permits because of inappropriate standards. State rum programs have misinterpreted standards for characteristics of land after mining in terms of elevation changes, creation of valley fills, creation of level sections, and other general descriptive information. The issue is how many of those characteristics, either by themselves or in a general combination, may be used in misinterpreting if AOC has been achieved. VA, KY and WV state run programs have determined that a waiver from AOC requirements is necessary, has used misinterpreted standards to require appropriate postmining land uses in granting the waiver?

FEDERAL REQUIREMENTS

General AOC Requirements

1. *Statute Section 701(2) of SMCRA defines "approximate original contour" to mean, that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated; water impoundments may be permitted where the regulatory authority determines that they are in compliance with Section 515 (b)(8) of this Act.*

30 U.S.C. 1291(2).

Section 515 of SMCRA sets forth environmental protection performance standards applicable to surface coal mining operations. 30 U.S.C. 1265. Among these is the requirement to return the land to AOC pursuant to Subsection 515(b)(3), mine operators must "backfill, compact . . . and grade in order to restore the approximate original contour of the land with all highwalls, spoil piles, and depressions eliminated." 30 U.S.C. 1265(b)(3).

2. OSM's Treatment of AOC in Rules

In its national regulations and in approving individual State programs, OSM adopted the statutory definition of AOC essentially unchanged. In the development of national regulations, the only discussion where elevation change was mentioned in relation to AOC is in the preamble to the rules regarding thick or thin overburden. The permanent program rules promulgated in 1979 defined thin overburden as overburden where the final thickness is less than 0.8 times the initial thickness and thick overburden as overburden where the final thickness is greater than 1.2 times the initial thickness. The preamble stated:

The definition of approximate original contour states that the reclaimed area should closely resemble the general surface configuration of the land prior to mining. OSM interprets this to mean that the approximate original contour, or configuration, of the premining land is intended, and minor changes in elevation are anticipated.

44 Fed. Reg. 15231 (March 13, 1979).

Thus, an elevation change of plus or minus 20 percent was accepted as AOC in those rules. In 1983, those numerical limits were deleted from the thick and thin overburden rules. See 48 Fed. Reg. 23356, 23365 (May 24, 1983). In 1988, the D.C. Circuit upheld the remand of those rule changes because the Secretary had failed to explain his reasons for removing the numerical limits. National Wildlife Federation v. Hodel, 839 F.2d 694, 734 (D.C. Cir. 1988). In 1991, OSM again published rules addressing thick and thin overburden. Again OSM declined to set a numerical limit and asserted that the issue was best left to the regulatory authority. The preamble contains cross sections showing elevation changes of greater than plus or minus 20 percent that would still be considered AOC. This rule was never challenged and remains in place today. See 56 Fed. Reg. 65629-95633 (December 17, 1991).

In 1987, OSM issued Directive INE-26 to provide guidance to OSM field personnel in evaluating AOC issues during oversight. The Directive makes three points with respect to AOC. First, because both the permittee and the regulatory authority (as well as other interested parties) need a clear understanding prior to mining of what the final postmining topography will be, the anticipated postmining topography must be determined in the permitting process to enable a determination if AOC will be achieved. Second, inspections should ensure that the approved postmining topography is being reasonably achieved, including general surface configuration, drainage, and elimination of highwalls and spoil piles. Third, in oversight, considerable deference should be given to prior decisions by the State, particularly where the final grade work has been done. In recognition of the emphasis that the 1987 Directive places on the role of the permitting process in applying AOC requirements to specific operations, the current review looked to see what WVDEP was accepting as meeting AOC requirements in the permitting process.

Federal Requirements Relating to Mountaintop Removal Mining Operations

Section 515 of SMCRA contains specific performance standards for mountaintop-removal mining. Subsection 515(c) permits an exception to the AOC restoration requirement for mountaintop removal operations which, after reclamation, would be capable of supporting specific postmining land uses. In such operations, instead of restoring the site to approximate original contour, the operator is permitted to remove all of the overburden and create a level plateau or a gently rolling contour with no highwalls remaining. 30 U.S.C. 1265(c). Subsection 515(c)(3) lists the allowable postmining land uses: "industrial, commercial, agricultural, residential or public facility (including recreational facilities) use[s]." 30 U.S.C. 1265(c)(3). In demonstrating the feasibility and practicability of the proposed postmining land use, the applicant must include specific plans and show that the use will be:

(1) compatible with adjacent land uses;

(2) obtainable according to data regarding expected need and market;

(3) assured of investment in necessary public facilities;

(4) supported by commitments from public agencies where appropriate;

(5) practicable with respect to private financial capability for completion of the proposed use;

(6) planned pursuant to a schedule attached to the reclamation plan so as to integrate the mining operation and reclamation with the postmining land use; and

(7) designed by a registered engineer in conformance with professional standards established to assure the stability, drainage, and configuration necessary for the intended use of the site.

30 U.S.C. 1265(c)(3)(B).

The Federal regulations pertaining to mountaintop-removal operations are found at 30 C.F.R. 785.14 and Part 824. The regulations generally track the language of SMCRA, but do clarify the applicable requirements in the following respects:

- A requirement for compliance with the alternative postmining land use provisions of 30 C.F.R. 816.133(a) through (c) [30 C.F.R. 824.11(a)(4)];

- A specification that final graded slopes on the plateau portion of the operation not exceed 1v:5h (20%) [30 C.F.R. 824.11(a)(7)];

- A requirement that plateau outslopes attain a minimum static safety factor of 1.5 or that they not exceed 1v:2h (50%) [30 C.F.R. 824.11(a)(7)];

- A requirement that the resulting level or gently rolling contour be graded to drain inward from the outslope [30 C.F.R. 824.11(a)(8)]; and

- A clarification that the prohibition on damage to natural watercourses applies only to watercourses below the lowest coal seam to be mined [30 C.F.R. 824.11(a)(9)].

Must also constitute an equal or better use Pursuant to SMCRA, the State may grant a permit with a mountaintop-removal AOC variance only after finding that:

- *the proposed postmining land use constitutes an "equal or better use;"*
- *the proposed use will be compatible with adjacent land uses and existing land use plans;*
- *county commissions and other State and Federal agencies have been provided an opportunity to comment on the proposed land use; and*
- *the application contains specific plans and assurances that the proposed use will be (1) compatible with adjacent land uses; (2) practicable with respect to financing and completing the proposed use; (3) supported by commitments from public agencies where appropriate; (4) planned pursuant to a schedule that will integrate the mining operation and reclamation with the postmining land use; and (5) designed by an approved person to assure the stability, drainage, and configuration necessary for the intended use of the site.*

REVIEW METHODOLOGY

Beginning in 1997, the public and media began to focus increasing attention on "mountaintop operations" in West Virginia. Commonly understood, this term refers to any operation that removes all or part of the top of a mountain or ridge and places the overburden or excess spoil resulting from the removal into valley fills. As used in this report, the broad term "-mountaintop operations" should be distinguished from the narrower term "mountaintop-removal (AOC variance) operations".

Three types of "mining practices are included in the term "mountaintop operations". These types are:

1. "Mountaintop-removal (AOC variance) operations" - Mines which remove all of the coal seam or seams in the upper fraction of a mountain or ridge and request a "mountaintop-removal variance from AOC. Only this kind of operation constitutes a "mountaintop-removal mine in the regulatory sense.

2. Mines which remove all of the coal seam or seams in the upper fraction of a mountain or ridge and return the land to AOC.

3. Mines in steep-slope areas (slopes exceeding 20 degrees) which have received steep-slope AOC variances according to State records. Notwithstanding regulatory definitions, OSM recognizes that the public's concern is not confined to any one of these "mining scenarios, but encompasses all three.

The Draft PEIS has not addressed these standard requirement issues, but has proposed developing even a more confusing reviewing SMCRA permit process as an alternative.

TENNESSEE STATE PARKS AND NATURAL AREAS AND WILDLIFE MANAGEMENT AREAS CONCERNS

The Draft PEIS fails to provide detail scientific information on any significant impacts to Tennessee's State Park Systems, Natural Areas, and Wildlife Management Areas found in the coalfield counties of Tennessee. 9-2-2

CONCLUSIONS

SOCM finds the Draft PEIS to be inadequate and too deficient to assess and evaluate the proposed federal action on the Tennessee Federal Program and its program-wide impacts and support program-level decisions that are reasonable and defensible to the current issues surrounding potential mountaintop mining and valley fills, mountaintop removal mining and cross ridge mining in the coalfields of Tennessee. The Draft PEIS baseline data has been inconsistent and used inappropriately to analyzes the potential impacts of mountaintop mining and valley fills, mountaintop removal mining and cross ridge mining operations in the coalfields of Tennessee. The specific data needed to analyze the Tennessee Federal Program has been insufficient to support the proposed Alternatives listed within the Draft PEIS. The fundamental requirements of CEQ and/or NEPA process require the lead agency to begin with comprehensive scoping. The scoping process in Tennessee was inadequately carried out by federal agencies whose only scoping seems to be inhouse. Input from scoping process should then be used to define the proposed alternatives that would avoid or substantially lessen the significant effects of proposed mountaintop mining and valley fills. These requirements have not been met in the circulated document in Tennessee. The stated objectives in the "Notice of Intent" of February 5, 1999 would not be realized through the preferred Alternative. The Draft PEIS is bias in that it fails to take the required "hard look" at the proposed federal action. The proposed Alternatives are misleading and inaccurate in representing the Tennessee Federal Program. 4-2

A Programmatic Environmental Impact Statement that would represent Tennessee needs to provide comprehensive scoping from coalfield citizens and state and local agencies, as well as the business community in each county, include an updated and consistent baseline data, be free of inconsistencies, have proper levels of analysis and explanation, and present impact assessments to Tennessee's natural environment and Tennessee's economy in the communities of the Tennessee coalfields. The Draft PEIS should conduct a "hard look" scenario at every significant impact. SOCM believes that these federal agencies should go back to the preliminary Draft EIS and start all over again. 4-2

Save Our Cumberland Mountains, Inc.
Stripmine Issues Committee

ATTACHMENTS

1. Map and listing of the Draft PEIS "Study Areas" in Tennessee.
2A. Eastern Minerals Int'l v. The United States, Supreme Court No. 01-1100 (2002)
2B. Eastern Minerals Int'l v. The United States Fed Cl No. 99-5054, 5059 (2001)
2C. Cane Tennessee, Inc. and Colton, Inc. v. The United States Fed. Cl 96-237L (1999)
2D. Rith Energy, Inc. v. The United States, Supreme Court No. 01-1145 (2002)
2E. Rith Energy, Inc. v. The United States, Fed. Cl No. 99-5153 (2001)
2F. Rith Energy, Inc. v. The United States, Fed. Cl No. 99-480L, (June and July, 1999)
2G. SOCM v. OSM and Skyline Coal Company, NX-97-3-PR (1998)
3. Article by Mr. Bob Keast, Executive Director of Tennessee Association of Resorts, Marinas and Marine Dealers.
4. Article, *"GOVERNOR BACKS CREDIT CARD CHECK"*, by Bill Poovey, AP Wire Service, THE TENNESSEAN NEWSPAPER, Saturday, July 7, 2003.
5. Article, BREDESEN OUTLINES PLANS TO EXPAND TOURISM ECOMONY" by Bob Keast.
6. Report, *THE ECONOMIC IMPACT OF TRAVEL ON TENNESSEE COUNTIES*, by The Tennessee Department of Tourist Development (2000)
7. Report, AN ECONOMIC REPORT TO THE GOVERNOR OF THE STATE OF TENNESSEE, by the UT's Center for Business and Economic Research (February, 2003)
8. Report, TENNESSEE BUSINESS AND ECONOMIC OUTLOOK, by UT's Center for Business and Economic Research (Spring, 2002)
9. Report, TENNESSEE BUSINESS AND ECONOMIC OUTLOOK, by UT's Center for Business and Economic Research (Fall, 2002)
10. Report, AN ANALYSIS OF AN ECONOMIC REPORT TO THE GOVERNOR OF THE STATE OF TENNESSEE, Tennessee Comptroller of the Treasury, (2001)
11. Report, TENNESSEE ECONOMIC OVERVIEW (2001)
12. Report, GENERAL ECONOMIC CHARACTERISTICS IN TENNESSEE, Examining Changes in Labor Market Conditions and Income Levels, 1990-2000, by UT's Center for Business and Economic Research (2001)
13. Mining Industry Labor Force data.
14. Information on Tennessee Arts' economic impacts in the Tennessee coalfields
15. Letter to State of Tennessee on SOCM's concerns to Economic and Community Development in the Tennessee coalfields
16. US Fish and Wildlife Service, "STRATEGIES PLAN FOR CONSERVATION OF FISH AND WILDLIFE TRUST RESOURCES IN THE LOWER-CUMBERLAND ECOSYSTEM"
17. Memorandum, US Fish and Wildlife Service, September 21, 2001)
18. Letter, SOCM to US Army Corps of Engineers and EPA on concerns with proposed revisions to the Clean Water Act. Dated July16, 2000.
19. Copy, Programmatic Agreement between the Federal Highway Administration and other organizations and Tennessee Department of Environment and Conservation and Tennessee State Historic Preservation Office.

20. Information on the Trail of Tears National Historic Trail's Draft Comprehensive Interpretive Plan.
21. Information on Tennessee Parks and Greenways Foundation Strategies conflicts with proposed federal action.
22. Listings of Rare Species in the 22 coalfield counties of Tennessee.
22A. Listings of species found in the Draft PEIS.
23. Information on State of Tennessee's Bioassessment Program.
24. Information on AVS program.
25. Information on Tennessee AML program.
26. Information on Tennessee Elk Restocking Program.
27. Information on OSM's Reforestation and Wildlife Habitat Enhancement Initiative
28. The Draft PEIS Regional Setting Supporting information.
29. Report, *"Mountaintop Removal Mining: An Environmental Impact Assessment (EIA) Scoping Exercise and Impact Assessment of Mining Activities on Aquatic Resources"*, by Mr. Jeff Lee Hansbarger
30. Copy, State of Tennessee's Controller of the Treasury Performance Audit on "Water Quality" in Tennessee. (2001)
31. Supplement Informational Brochures from Tennessee's coalfield counties.

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:39 AM -----

Vince Meleski
<vince@wildalabama.org>
To: R3 Mountaintop@EPA
cc:
Subject: Mountaintop Removal Mining Comments
12/23/2003 02:24 PM

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street Philadelphia, PA 19103

It is hard to believe that the Bush administration plans to continue to allow coal companies to destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. The existing evidence of recent events and the facts presented in the Draft Environmental Impact Statement should be enough to convince you that mountaintop removal coalmining must be significantly limited or stopped. 1-9

As described in the administration's Draft Environmental Impact Statement (DEIS) on mountaintop removal coal mining, the environmental impacts of mountaintop removal are widespread, devastating, and permanent. Yet the
DEIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be removed, no protections for wildlife, and no safeguards for the communities and people that depend on the region's natural resources for themselves and future generations.
The administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal
mining is to weaken existing environmental protections. The DEIS proposes streamlining the permitting process and allowing mountaintop removal and associated valley fills to continue at an accelerated rate. 1-5
The DEIS also proposes doing away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams unless it can be proven that streams will not be harmed. This is ridiculous!This "preferred alternative" ignores the administration's own studies
detailing the devastation caused by mountaintop removal coal mining, including:

- without new limits on mountaintop removal, additional mountains, streams, and forests will be destroyed
by mountaintop removal mining
- the fact that impacts to streams would be greatly lessened by reducing the size of the valley fills where mining wastes are dumped on top of streams
-the impact on wildlife species
- the total of past, present and estimated future forest losses
- even if hardwood forests can be reestablished in mined areas, which is unproven and unlikely, there is no way these areas can be restored similar to the handiwork created by God
The "preferred alternative" ignores these and hundreds of other scientific facts contained in the DEIS studies. It appears the only goal is to increase mountaintop removal coal mining with little regard for the environment.In light of these facts, the Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in
Appalachia, such as limitations on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. 1-5

Better yet mountaintop removal should not be permitted at all.

Vince Meleski
Program Director
Wild Alabama/Wild South
P O Box 117
Moulton, AL 35650
Phone: (256)974-6166
Fax: (256) 974-5406
E-mail: vince@wildalabama.org
Member of:
Southern Appalachian Forest Coalition
National Forest Protection Alliance

APPALACHIAN CITIZENS LAW CENTER, INC.
207 W. COURT ST., SUITE 202
PRESTONSBURG, KENTUCKY 41653-7725
606-886-1442 1-800-919-1442
Fax 606-886-1455

AMANDA MOORE
Staff Attorney

STEPHEN A. SANDERS
Director

REC'D JAN 0 6 2004

January 2, 2003

Mr. John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Re: Mountaintop Mining/Valley Fills in Appalachia Draft Programmatic Environmental Impact Statement

Dear Mr. Forren:

Thank you for the extended opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) on Mountaintop Mining and Valley Fills in Appalachia. This letter is in addition to oral comments presented by the Appalachian Citizens Law Center (Law Center) at the public hearing held in Hazard, Kentucky on July 22, 2003.

The Law Center is a non-profit law office serving the Appalachian coalfields by providing free legal services to low-income families and communities on coal-related issues such as black lung benefits, mine safety matters, and environmental concerns. By having such a broad focus on the impacts of the coal industry, we see the consequences of mountaintop mining both on the surrounding communities and on the miners themselves.

As we stated at the public hearing, the Law Center is extremely disappointed in this much-anticipated Draft EIS. Attached to the Draft EIS are numerous studies detailing the environmental destruction caused by mountaintop mining and valley fills, yet the Draft EIS fails to suggest even one alternative to curb the destruction. This chasm between the scientific studies and the proposed actions highlights the arbitrary and capricious nature of the entire Draft EIS. The following examples highlight the disparity between the documented environmental impact of mountaintop mining and the agencies' proposed actions in response: 1-5

- **Data:** During the study period, 724 miles of stream were covered by valley fills. Draft EIS, II.C-30. Constructing valley fills on top of streams will "eliminate stream biota and the ability of these organisms to synthesize organic material to provide life . . . for down stream reaches." Draft EIS, II.C-30.
  Proposed Action: Rather than proposing additional protections for streams from valley fills, the Draft EIS proposes exempting valley fills from the stream buffer zone rule. Draft EIS, II.C-35.

- **Data:** In just the last ten years, 1,200 miles of streams have been affected by surface mining activities. Draft EIS, II.C-30. In addition, 438,472 acres of watersheds have been affected by valley fill construction. Draft EIS, III.K-38.
  Proposed Action: Rather than curbing the amount of streams and watersheds affected by mining, the agencies will instead "continue to evaluate" the effects of mountaintop mining and "continue to work" to refine protocols, decisions, and requirements. Draft EIS, II.C-44.

- **Data:** From the late 1980s to the late 1990s, the average fill increased in size by 72 percent, and the average length of stream affected per fill increased by 224 percent. Draft EIS, I-5. From 1985 to 2001, 83,797 acres of land were covered by valley fills in the study area. Draft EIS, III.K-32, 33.
  Proposed Action: Rather than imposing limits on fill size, OSM will "continue the on-going rule-making process to clarify obligations of the operator" and will "consider whether additional future rulemaking is warranted." Draft EIS, II.C-49.

- **Data:** Mountaintop mining is likely to increase flooding from intense summer thunderstorms, particularly during storm systems that last several days. Draft EIS, Appendix H, USGS Executive Summary: Comparison of Storm Response of Streams in Small, Unmined and Valley-Filled Watersheds, 1999-2001, Ballard Fork, West Virginia (pp. 5-6). Even after reclamation, discharge from valley fills was 42 percent higher than premining conditions. This increase raised the 100-year flood stage by more than two feet. Draft EIS, Appendix H, OSM Valley Fill Study, Hobet Mine Westridge Valley Fill, U.S. Army Corps of Engineers, Pittsburgh District (p.22). 1-5
  Proposed Action: In spite of these studies, the Draft EIS contends that no conclusions can be made about the impacts of mining on runoff. Therefore, the EIS proposes that the agencies develop guidelines to evaluate flooding risk, which "could make the permit evaluation more efficient." Draft EIS, II.C-90.

- **Data:** The forests in the study area are very diverse, but a fundamental change from a forested habitat to grasslands could occur, thereby jeopardizing the "biological integrity of the study area" and leading to "biological collapse." In eastern Kentucky alone, 255,582 acres of forest have been lost to mountaintop mining in just the past ten years. Draft EIS, Appendix I, EPA Landscape Scale Cumulative Impacts Study of Mountaintop Mining Operations.
  Proposed Action: OSM will compile a manual with guidelines for post-mining land use. OSM will require reclamation with trees only if legislative authority is established. Even then, there might be an exception to the requirement if the applicant could demonstrate that uses other than forestry would provide greater environmental benefits. Draft EIS, II.C-83.

The environmental problems chronicled in the Appendices are serious and potentially devastating, yet the Draft EIS suggests "actions" that do nothing to curb the environmental destruction. The residents of Appalachia need real actions to protect their land and communities from the destruction that is so clearly detailed in the Appendices to the Draft EIS.

The Draft EIS additionally fails to consider an adequate range of alternatives. Rather than proposing alternatives to limit the environmental impacts of mountaintop mining, the Draft EIS

goes to the extreme opposite and presents alternatives to make the permitting process easier. A preliminary Draft EIS from January 2001 presented three separate alternatives that limited valley fills in some way. The current Draft EIS, however, does just the opposite by proposing three alternatives that in no way limit fills. The stated reason for not including at least one alternative that limits fills -- that there is not enough scientific evidence that such limits would reduce stream impacts -- defies common sense as well as the findings of the studies attached to the Draft EIS. The narrow range of alternatives examined in this Draft EIS is arbitrary and capricious, and the Law Center supports none of the alternatives presented. 1-5

As we have stated in earlier comments on separate proposals, the Law Center does not believe that issuing permits to dump mining waste in streams is legal under the Clean Water Act as passed by Congress. However, given the narrow options presented by the Draft EIS, one aspect of Alternative 1 is preferable to the other alternatives -- that valley fills will be presumed to require individual 404 permits (IPs) from the Army Corps of Engineers rather than falling within nationwide permit 21 (NWP 21). However, Alternative 1 remains flawed because it includes the offensive proposal to eliminate the stream buffer zone rule with regard to excess spoil disposal. We have submitted comments previously opposing such a potential rule. 1-1 1-10

While the Law Center certainly is not opposed to increased government efficiency, such efficiency must not come at the expense of the human or natural environment. The agencies responsible for this Draft EIS have made just such a mistake, however, by choosing a course of action that will make the mining permitting process easier for coal companies while failing to provide any increased protections for the environment or the communities living near these mines. The agencies' chosen "efficiency alternative" does not even meet the stated purpose of this EIS, which is "to minimize, to the maximum extent practicable, the adverse environmental effects to waters of the United States and to fish and wildlife resources affected by mountaintop mining operations, and to environmental resources that could be affected by the size and location of excess spoil disposal sites in valley fills." Draft EIS, I-2. Once again, this Draft EIS is internally inconsistent and arbitrary and capricious. 4-2

In addition, we support the comments submitted to you by Kentuckians for the Commonwealth, Ohio Valley Environmental Coalition, Kentucky Waterways Alliance, Sierra Club, Earthjustice, and Trial Lawyers for Public Justice. The Law Center urges you to consider these comments and return to the Draft EIS to make changes that will provide a real benefit to the whole of Appalachia by preserving its natural environment and protecting its residents. Give the public a meaningful range of alternatives and proposed actions that are based on the studies detailing the myriad problems caused by mountaintop mining. Give us a Draft EIS that is not an arbitrary and capricious abuse of agency power.

Please feel free to contact me if you would like to discuss our concerns further.

Sincerely,

Amanda Moore

Amanda Moore
Staff Attorney

3

West Virginia Council of Trout Unlimited

January 6, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103
mountaintop.r3@epa.gov

Dear Mr. Forren:

These comments represent the views of the members of the West Virginia Council of Trout Unlimited (WVCTU) in response to the request for comment on the Draft Programmatic Environmental Impact Statement ("DEIS") on mountaintop removal coal mining and associated valley fills in Appalachia, published at 68 Fed. Reg. 32487 (May 30, 2003) by the U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (COE), U.S. Fish and Wildlife Service (FWS), U.S. Office of Surface Mining (OSM) and West Virginia Department of Environmental Protection (WVDEP).

WVCTU has a focused mission of conserving, protecting and restoring North America's coldwater fisheries. WVCTU represents over 1500 volunteer members in West Virginia. We are confident that you will receive many comments from highly qualified parties addressing the technical details of the DEIS. WVCTU will limit our comments to a broader perspective that more accurately represents the position of our members.

WVCTU is completely and unequivocally opposed to the degradation or destruction of any stream, particularly headwater streams. Many of the stream sections being eliminated are, have been, or should be, native Brook trout streams. The native Brook trout is the West Virginia State Fish and is an irreplaceable resource. Any activity leading to the detriment of cool/cold water resources and the associated ecosystems is simply unacceptable under any circumstance. 6-6-2

WVCTU is strongly opposed to any intrusion or destruction of riparian buffer zones. Riparian buffer zones are critical components of stream health. Buffer 5-3-2

zones filter water runoff from the surrounding lands, provide nutrient matter for benthic populations and shade the stream helping to cool the water during warm temperatures. The elimination of riparian buffer areas causes a direct impairment to water quality, and negatively influences designated and existing uses. 5-3-2

WVCTU is opposed to mountaintop removal coal mining in general due to the overwhelming loss of aesthetic values. Our members have a great affinity for being outdoors enjoying our forests and streams. There is probably nothing more unpleasant than being outdoors with the backdrop of a barren, rubble strewn wasteland created by mountaintop removal. That backdrop is becoming far too common in many areas. 1-9 10-6-2

WVCTU looks forward to working with the EPA in protecting our irreplaceable resources from the type of devastation brought about by mountaintop removal coal mining. Our water resources are a very important part of our heritage and they must be preserved and protected for the generations to follow. WVCTU will pursue any appropriate means necessary to protect these streams and resources from total destruction.

Thank you for the opportunity to provide these comments on behalf of the members of the West Virginia Council of Trout Unlimited.

Sincerely,

Bryan K. Moore, Chair
WVCTU
787 Twin Oaks Dr.
Bridgeport, WV 26330-1645

Earthjustice ♦ Natural Resources Defense Council ♦ American Rivers ♦ Friends of the Earth ♦ National Audubon Society ♦ National Wildlife Federation ♦ Sierra Club ♦ Shagbark ♦ Valley Watch ♦ West Virginia Citizen Action ♦ West Virginia Environmental Council ♦ West Virginia Rivers Coalition

January 6, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Delivered via U.S. Mail and Email (mountaintop.r3@epa.gov)

Dear Mr. Forren:

These comments are submitted by Earthjustice, the Natural Resources Defense Council, American Rivers, Friends of the Earth, National Audubon Society, National Wildlife Federation, Sierra Club, Shagbark, Valley Watch, West Virginia Citizen Action, West Virginia Environmental Council, and West Virginia Rivers Coalition in response to the request for comment on the Draft Programmatic Environmental Impact Statement ("DEIS") on mountaintop removal coal mining and associated valley fills in Appalachia, published at 68 Fed. Reg. 32487 (May 30, 2003) by the U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (COE), U.S. Fish and Wildlife Service (FWS), U.S. Office of Surface Mining (OSM) and West Virginia Department of Environmental Protection (W.V. DEP) (hereinafter "the agencies"). We hereby incorporate by reference all documents citied in these comments.

In mountaintop removal coal mining, vast areas of forest are stripped from the land and the tops of mountains are blasted apart and removed to extract thin seams of coal within the mountains. The waste rock, or "excess spoil," from this process is usually disposed of in nearby valleys, creating enormous "valley fills" that have already buried and destroyed hundreds of miles of Appalachian streams. Generations-old communities are forced from their homes by the blasting, flooding, and environmental destruction. Fish and wildlife habitat is damaged or destroyed, including habitat of threatened and endangered species. An environmentally, socially, economically, and historically important region of this country is being leveled by mountaintop removal coal mining. It is no overstatement to call this an environmental apocalypse – it is certainly one of the worst examples of plundering the environment occurring anywhere in this country today. 1-9

The original purpose of the mountaintop removal programmatic EIS was to develop policies and procedures to "**minimize, to the maximum extent practicable**, the adverse environmental effects to waters of the United States and to fish and wildlife resources from mountaintop [removal] mining operations, and to environmental resources that could be affected by the size and location of fill material in valley fill sites."[1] **The May 30, 2003 DEIS has completely abandoned this purpose. It contains no meaningful, substantive alternatives or** 1-5

[1] *See* 64 Fed. Reg. 5830 (February 29, 1999) (emphasis added).

recommendations that would minimize to any degree the environmental harm caused by mountaintop removal coal mining, let alone policies or procedures to reduce these harms to "the maximum extent practicable."[2]

Instead, the only alternatives offered by the DEIS all involve changes to the federal permitting process that are calculated to "streamline" agency decision making to make it easier for coal companies to continue mountaintop removal strip mining, and weaken existing environmental safeguards that are designed to reduce the environmental destructiveness of mountaintop removal and valley fills. All of the DEIS' alternatives (even the so-called "No Action" alternative) propose gutting the surface mining law's Buffer Zone rule that currently prohibits mining activities from disturbing areas within 100 feet of larger streams.

Unlike the DEIS released by the Bush administration, earlier drafts of the programmatic EIS **did** consider alternatives that would substantially reduce the harm caused by mountaintop removal, most significantly by limiting the size of valley fills. The January 2001 Preliminary Draft evaluated four options, including two that would have restricted the size and placement of valley fills in certain types of streams.[3] But these and similar alternatives for limiting the size and location of mountaintop removal and valley fill operations have been completely eliminated from the May 30 DEIS, despite the fact that the studies accompanying the DEIS fully support options to limit mountaintop removal and valley fills.[4] 1-5

In sum, the DEIS ignores the scientific and economic studies it was supposed to be based upon, contravenes the very purpose of the EIS, violates the National Environmental Policy Act (NEPA), and demonstrates a startling disregard of the agencies' legal duties to protect the natural resources and people of Appalachia and the rest of the country. This approach is not supported by law, policy, science, common sense, or humanity. The studies accompanying the DEIS confirm that mountaintop removal is wiping out an entire region of the United States – hundreds of square miles of communities, wildlife resources, streams, mountains, and forests – human communities and natural resources that can never be replaced.

The approach taken by the DEIS is particularly unconscionable given the permanent and pervasive environmental devastation caused by mountaintop removal coal mining documented by the approximately 5000 pages of scientific studies accompanying the DEIS. These studies not only confirm the obvious conclusion that blowing up mountains, wiping out forests, and burying streams under millions of tons of rubble has irreversible and extensive environmental consequences, but also that a failure to impose meaningful limits on such practices will more than double the widespread damage that has already been done to resources of regional and national importance. The failure of the DEIS to even consider, let alone select,

[2] The DEIS states that its purpose is to "evaluate options for improving agency programs . . . that will contribute to reducing the adverse environmental impacts of mountaintop [removal] mining operations and excess spoil valley fills (MTM/VF) in Appalachia," DEIS ES-1, an overly optimistic description given the actual content of the DEIS, but a purpose that falls far short of minimizing such impacts to the "maximize extent practicable."

[3] Mountaintop Mining / Valley Fill EIS, Preliminary Draft, January 2001, at ES-6.

[4] The studies in the DEIS supported the contention that limiting the size and placement of valley fills was environmentally preferable to alternatives such as those contained in the DEIS which contain no such limits. The option of eliminating valley fills altogether – likely the most environmentally beneficial option of all – was not evaluated by these studies.

alternatives to reduce this environmental catastrophe being inflicted on Appalachia by the coal mining industry is nothing short of stunning. 1-5

In order to fulfill the purpose of the EIS, be consistent with the findings of the studies on mountaintop removal, and meet the agencies' obligations under NEPA and other federal laws, the DEIS must be rewritten to consider substantive alternatives that would minimize the environmental harm caused by mountaintop removal and select a preferred alternative that would truly protect the resources and people of the region. 4-2

A. The Evidence of Devastation Caused By Valley Fills Is Overwhelming and Claims That Valley Fills Cause No Harm to the Environment and Human Communities Are False

The DEIS attempts to deny or minimize the significance of the environmental harm caused by mountaintop removal mining and valley fills, both by downplaying the magnitude of the harm documented in the scientific studies accompanying the DEIS and by failing to recommend meaningful ways to limit the damage.[5] But the evidence presented throughout the document's appendices illustrates the devastating impacts to streams, forests, wildlife habitat and human communities that has already occurred and that is projected to continue for the foreseeable future if restrictions on mountaintop removal are not implemented. The DEIS' recommendation for "action alternatives" is not supported by the record of harm included in the technical and scientific studies accompanying the decision document.[6] 5-7-2

To begin with, there is the matter of permanent and irreversible loss of streams mined or buried under hundreds of millions of tons of rubble and waste rock. Incredibly, "direct" stream impacts such as these are not included in the DEIS calculation of whether or not valley fills cause environmental harm. While this omission may be convenient for the purpose of twisting the DEIS analysis to fit a desired outcome, the fact remains that the DEIS' own studies conclude that more than 1,200 miles of headwater streams in Appalachia have already been buried or destroyed, with another 1,000 miles projected for burial and destruction in the next ten years if limits are not placed on mountaintop removal operations.[7] The functions and values of those streams, as well as any wildlife that were unlucky enough to be present when the mountaintops were blown away, are lost forever. The studies found that no scientific basis could be

[5] For example, the DEIS incorrectly claims that "[w]atershed impacts directly attributable to mining and fills could not be distinguished from impacts due to other types of human activity," DEIS II.C-74, and "the EIS studies did not conclude that impacts documented below MTM/VF operations cause or contribute to significant degradation of waters of the U.S." DEIS II.D-9. Such claims are irrefutably contradicted by the data contained in the EIS studies.

[6] The studies accompanying the May 30 DEIS – the technical, scientific and economic studies contained in the appendices – were prepared for as used as the basis of the January, 2001 Preliminary EIS. These findings of these studies fully support action alternatives to limit mountaintop removal and valley fills. As discussed further below, while these studies form the appendices of the May 30 DEIS, they do not provide a basis of support for the DEIS' action alternatives.

[7] It is important to note that many studies indicate that these reported stream impacts are likely to be a gross underestimation of the stream miles filled in the study area. The inventories used in the EIS rely heavily on topographical maps that often do not map smaller headwater streams, despite their ecological importance. *See* Testimony of J. Bruce Wallace, Professor, University of Georgia, before the US Senate Committee on Environment and Public Works, June 6, 2002.

established for arriving at an environmentally "acceptable" amount of stream loss and it is "difficult if not impossible to reconstruct free flowing streams on or adjacent to mined sites."[8]

Attempts to minimize the downstream or "indirect" environmental impacts of valley fills are similarly unavailing. For example, available evidence strongly points toward valley fills causing significantly elevated levels of selenium, a highly toxic bioaccumulant. DEIS studies found elevated levels, with 66 violations of stream water quality criteria, below valley fills and none found at test sites without valley fills upstream.[9] In addition, the studies found that numerous other indirect impacts to streams, including the reduced ability of headwater streams to maintain their nutrient cycling function, increased sedimentation, reduced floodwater attenuation potential, and temperature changes, are of great concern. The Cumulative Impact Study found that "[f]or both direct and indirect impacts to ecological processes resulting from alterations in hydrologic patterns, [mountaintop removal and valley fills] would appear to be the major impact producing activity in the study area."[10]

Moreover, the DEIS shoves to one side the environmental implications of massive deforestation in Appalachia. The studies accompanying the DEIS found that when adding past, present and future terrestrial disturbances, the estimated area that will be stripped and flattened encompasses 1,408,372 acres of forest resources – which roughly equates to 11.5% of the entire study area,[11] – an area larger than the entire state of Delaware. The destruction of these nearly 1.5 million acres of some of the most diverse temperate forest in the country has widespread environmental,. economic and social consequences for the region and the nation. It is extremely unlikely that even a small portion of this forest will be restored, and the timeline for even that minute level of restoration is hundreds, if not thousands of years.[12]

1-13

In evaluating whether there are significant impacts to the environment from mountaintop removal and valley fills, the primary authors of the DEIS ignore the catastrophic impact to wildlife that has already occurred or is projected to occur in the near term as documented in the appendices. For example, as is noted in the EPA's Cumulative Impact Study:

> The southern Appalachians have been identified by the Nature Conservancy as one of the hot spot areas in the United States for rarity and richness. This region is known to have the highest regional concentration of aquatic biodiversity in the nation. For this reason, it is hypothesized that impacts which result in decreases in genetic diversity, as measured by loss of species, loss of populations or loss of genetic variants, would have a disproportionately large impact on the total aquatic genetic diversity of the nation.[13]

The Cumulative Impact Study further explains:

> Riparian habitats are generally ecologically diverse and they often provide habitat for unique, or ecologically important species ..The projected potential adverse impacts in the West Virginia study area is 7,591 acres, or 3.2%. Approximately 55% of the projected riparian habitat impacts occur in first and second order streams which are important habitats to many species of ..wildlife.[14]

> [F]orest loss in the West Virginia portion of the study area has the potential of directly impacting as many as 244 vertebrate wildlife species.[15]

> Assuming that 80% of the salamanders are lost in the projected forest impact areas, approximately 1,232,972,280 have the potential of being adversely impacted.[16]

The DEIS states that:

> [T]his EIS describes biotic interactions common in headwater streams and various vertebrate species including birds, salamanders (including newts), and mammals which require interactions with the aquatic environment in order to maintain their life cycle...Filling would eliminate all aquatic and aquatic-dependant interactions that would formerly have occurred in the filled area...[T]he permanent nature of filling would suggest that MTM/VF impacts to biotic interactions in headwater stream systems...may constitute a[n] irreversible impact to this system in the study area.[17]

1-13

The widespread deforestation of Appalachia will also have detrimental impacts on forest birds, particularly fragmentation-sensitive species including the cerulean warbler, Louisiana waterthrush, worm-eating warbler, black-and-white warbler and the yellow-throated vireo. The DEIS found that the potential adverse impact of loss of habitat for forest interior bird species "has **extreme ecological significance** in that habitats required by these species for successful breeding are limited in the eastern United States."[18]

As succinctly summarized in the Cumulative Impact Study:

> Mountaintop mining and valley fill activities significantly affect the landscape mosaic. Landcover changes occur as forests are removed, the topography and hydrology is altered, and vegetation is eventually re-established. **The result is an area drastically**

[8] *See* MTM/VF EIS Steering Committee, "Problems Identified/Confirmed/Inferred by Technical Studies," August 15, 2002 working draft.
[9] EPA's stream chemistry study found that "The selenium data clearly show 'hot spots' with higher concentrations of selenium in each of the five watersheds [that were studied] and located downstream of 'Filled' sites ONLY. There are 66 violations of the stream water quality criteria identified and each is at a filled site. No other category of site had violations of selenium!" Email from Gary Bryant (EPA WV) to William Hoffman (EPA Region 3), March 27, 2002 (capitalization and exclamation point in original).
[10] DEIS App. I at 75.
[11] DEIS IV.C-1.
[12] Email from Cindy Tibbott, FWS, re: MTM/VF EIS cumulative impact assessment, June 26, 2001 ("even if hardwood forests can be re-established, it should be intuitively obvious that they'll be a drastically different ecosystem from pre-mining forests for generations, if not thousands of years").

[13] DEIS App. I, p.78.
[14] DEIS App. I, p. vi.
[15] Id. at 86.
[16] Id. at 92-93.
[17] DEIS IV.D-4 – 5.
[18] DEIS App. I, at 90 (emphasis added).

different from its pre-mining condition. Soil qualities are different, the vegetative community has a different structure and composition, and habitats are altered.[19]

Finally, but no less importantly, the DEIS also downplays and dismisses the damage caused to the human communities living within the shadow of mountaintop removal operations.[20] For example, the blasting involved in mountaintop removal coal mining causes significant harm to local residents, including structural damage to their homes, excessive noise and dust, damage to wells, and psychological harm from the very real fear of flying rock and other debris. A report by West Virginia's legislative auditor found that "[c]itizens . . . could be living in hazardous conditions due to damage sustained in a blasting incident."[21] The DEIS admits that blasting "will continue to have periodic adverse effects on the quality of life of residents living in close proximity to the mine sites."[22] Yet, instead of evaluating reasonable steps that could be taken to reduce or eliminate these adverse effects, the DEIS cavalierly suggests that coalfield residents can file lawsuits to abate the nuisance.[23] This failure to address one of the important problems identified by local residents is not only illegal but also insulting to the communities who are forced to live near these mining sites. 1-13

In sum, the DEIS' conclusion that there is insufficient evidence to link mountaintop removal mining and valley fills with substantial and permanent environmental harm to streams, forests, wildlife and people is unsupported by the record and violates NEPA.

B. The DEIS Must Consider Alternatives to Minimize the Environmental Impacts of Mountaintop Removal Coal Mining and Document the Impacts of Alternatives, Including the "Preferred Alternative"

The May 2003 DEIS fails to conclude that mountaintop removal mining should be curtailed or that its impacts should reduced, despite overwhelming evidence to the contrary provided by the DEIS' own studies. **In fact, through the DEIS, the Bush administration is actually calling for easing existing environmental restrictions on this damaging mining method in direct contradiction to the findings of the scientific and technical studies.**

The DEIS contains "four alternatives" – a "No Action" alternative that purports to maintain current regulatory programs, policies, and coordination processes[24] and three "Action" alternatives, each of which only considers making administrative changes in the permitting process. None of the "alternatives" considered in the DEIS would impose new limits or clear, objective, substantive restrictions on mountaintop removal operations. 1-5

[19] DEIS App. I, at 23 (emphasis added).
[20] *See* DEIS III, W-1 *et seq.*, "Blasting and the Local Community."
[21] West Virginia Legislative Auditor, Preliminary Performance Review, "The Office of Explosives and Blasting Is Not Meeting All Required Mandates," p. 15-16 (December 2002).
[22] DEIS III W-6.
[23] Id.
[24] As noted below in Section C of these comments, even the so-called "No Action" alternative inexplicably contemplates amending the existing stream Buffer Zone rule.

The Bush administration's "Preferred Alternative" in the DEIS suggests changes to "streamline" the permitting process and shuffle authority between the agencies – often in violation of federal law – while setting no meaningful limits on the size, location, or impacts of mountaintop removal operations, including valley fills. The DEIS' "Preferred Alternative" would attempt to combine the Surface Mining Reclamation and Control Act (SMCRA) and Clean Water Act (CWA) permitting processes in the name of bureaucratic efficiency. However, many of the intended benefits of both laws would be largely undermined by this proposed approach, which would give the OSM a greater role in Clean Water Act permitting decisions – a responsibility Congress entrusted to EPA, not the Office of Surface Mining. In addition, all of the DEIS alternatives assume the federal government will rewrite and weaken the SMCRA Buffer Zone rule, a long-standing law adopted to protect streams from coal mining activities.

The Bush administration's policy recommendations in the DEIS are completely at odds with the scientific studies. A January 2001 Preliminary Draft EIS[25] more accurately (though still imperfectly) reflected the Cumulative Impact Study's analysis of the effects on aquatic and terrestrial resources and species of several different scenarios for future mountaintop removal mining. The studies accompanying the Preliminary Draft EIS looked at alternatives including: 1) no limits on the size of valley fills, 2) a 250 acre limit, 3) a 150 acre limit, 4) a 75 acre limit and 5) a 35 acre limit on the size of fills.[26] Not surprisingly, the cumulative impact report found that the most restrictive alternative studied – the 35-acre limit – would result in the fewest environmental impacts on streams, forested areas, and species. The study noted that there would still be significant environmental damage even under this scenario, especially to headwater streams. Each of these preliminary alternatives assumed continuation of existing environmental protections, such as the stream Buffer Zone rule that limits mining damage within 100 feet of streams. 1-5

The Preliminary Draft EIS contained three action alternatives that restricted valley fills to ephemeral or intermittent streams and retained the 100-foot stream Buffer Zone (SBZ) rule, and a "No Action" alternative. The uncontrolled "No Action" scenario was shown to have the worst environmental impacts. Nonetheless, that is what the Bush administration essentially proposes in its May 2003 DEIS as the "Preferred Alternative" – a proposal that does not even consider, let alone recommend, any "bright line," objective acreage limits on valley fills. The May 2003 Bush administration "Preferred Alternative" also fails to propose an end to the use of Clean Water Act §404 general permits to authorize valley fills or any other meaningful limit on valley fills, regardless of whether an individual or general permit is used, despite the fact that limits on the size of valley fills is what the cumulative impacts study evaluated.

The May 30 DEIS itself confesses that there is little substantive difference between the alternatives considered. For example, the document states that "**[a]ll alternatives** ... are based on **process differences** and **not directly on measures that restrict the area of mining.**"[27] The DEIS states that "[t]he environmental benefits of the three action alternatives are very similar,"[28] and further acknowledges that "[t]he regulatory responsibilities ... are common to all the

[25] Mountaintop Mining/Valley Fill EIS, Preliminary Draft, January 2001.
[26] Gannett-Fleming, "Landscape Scale Cumulative Impact Study of Future Mountaintop Mining Operations."
[27] DEIS IV.G-3 (emphasis added).
[28] DEIS II.B-13.

alternatives . . . . However, the lead agency for each responsibility under the action could vary under each alternative."[29] The DEIS further admits that "[t]he proposed action alternatives are largely administrative and as a result, accurately projecting their environmental consequences is difficult."[30]

These stark but perhaps unavoidable admissions demonstrate that the DEIS does not really consider any real limitations on mountaintop removal or action alternatives that would minimize, to the maximum extent practicable, the environmental effects of this destructive mining practice.[31]

The dramatic shift from the Preliminary Draft to the May 2003 DEIS appears to be primarily due to the influence of the Office of Surface Mining (OSM) on the development of the EIS under the Bush administration. Under the previous administration, meaningful limits on the effects of mountaintop removal coal mining were at least being studied and considered. But in October 2001, J. Steven Griles, a former coal industry executive and lobbyist appointed to the post of Deputy Secretary of the U.S. Department of the Interior, issued a letter to the CEQ, Office of Management and Budget (OMB), EPA, and COE, stating in pertinent part: 1-13

> We believe the [mountaintop removal/valley fill] EIS is the logical vehicle to address environmental protection and promote government efficiency, while meeting the nation's energy needs. . . . We do not believe that the EIS, as currently drafted, focuses sufficiently on these goals. We must ensure that the EIS lay (sic) the groundwork for coordinating our respective regulatory jurisdiction in the most efficient manner. **At a minimum, this would require that the EIS focus on centralizing and streamlining coal mine permitting**, and minimizing or mitigating environmental impacts.[32]

This was a none-too-subtle directive to the other federal agencies to shift the EIS's focus away from minimizing environmental effects in favor of permit streamlining and, at best, trying to "mitigate" the destruction of mountaintop removal, rather than avoiding it. A follow-up email from OSM's Mike Robinson explained to the other agencies that:

[29] DEIS II.C-25.
[30] DEIS IV.A-1.
[31] *See also* DEIS IV. A-5 ("The No Action Alternative and action alternatives will not eliminate the loss of stream segments and reduction in organic matter transported downstream"); DEIS IV. A-D7 ("There are no significant differences among the No Action Alternative and Alternatives 1, 2, and 3 in terms of their ability to protect [threatened and endangered] species"); DEIS IV. G-3 ("All alternatives may continue to displace local communities in essentially equal amounts, since the alternatives are based on process differences and not directly on measures that restrict the area of mining. . . . all alternatives will produce indistinguishable indirect impacts in this regard"); DEIS IV.I-1 (Social Conditions) ("Since all of these actions would be implemented in Alternatives 1, 2, or 3, no distinction can be made between and among these alternatives as they affect social impacts").
[32] Letter from J. Steven Griles to CEQ, OMB, EPA, and COE re: Mountaintop Mining/Valley Fills Issues, October 5, 2001. It is worth noting that Mr. Griles is a former coal industry executive and lobbyist who continues to receive annual payments of $284,000 per year from the sale of his former lobbying firm, National Environmental Strategies. When appointed to his present post, Mr. Griles sold his lobbying firm and signed a recusal agreement pledging that while at Interior he would not be involved in "any particular matter involving specific parties in which any of my former clients is or represents a party." Griles' former clients include many coal companies that conduct mountaintop removal mining, as well as the National Mining Association, the industry trade group and a vocal advocate for weakening federal environmental laws to benefit the coal industry.

> OSM has received some **executive direction** from the Department of the Interior on a[n] overall theme for the EIS to embrace.. [T]he document was shared by Deputy Secretary Griles with many of the principals of our agencies this Monday at a meeting with the President's [CEQ].[33]

Other federal agencies involved in the EIS appeared both shocked and dismayed by this turn in events. Several inter-agency communications obtained by Trial Lawyers for Public Justice under the Freedom of Information Act indicate that the change in the EIS from studying ways to limit the environmental effects of mountaintop removal into an exercise in permit streamlining to benefit the coal industry was received as unexpected and ill-advised by the other federal agencies. For example, Dave Densmore of the U.S. Fish and Wildlife Service (which, like the Office of Surface Mining, is part of the Department of the Interior) stated in an October 11, 2001 e-mail to Mike Robinson that:

> Needless to say, this is not a shining example of our Department having "spoken with one voice," since I can find no evidence of anyone at FWS having reviewed or concurred with this approach. Regardless, based on my initial review, **I find I cannot support this approach, if for no other reason than the record having amply demonstrated that it has been the absence of federal oversight, not its confounding influence, that has gotten us in the fix we are in now.**[34] 1-13

This "all process, no substance"[35] approach was sharply criticized by others involved in developing the programmatic EIS. In a revealing internal critique, the FWS explained why the revised framework for the DEIS is completely inadequate:

> Now that the basic concept has been more fully elaborated . . . **it is painfully obvious to us that there are no differences between the three action alternatives that can be analyzed in a NEPA context**. Table IV-2 (Comparison of Alternatives) underscores this fundamental shortcoming: Each of the three action alternatives offers only meager environmental benefits (thus a "two-star rating," as with a budget hotel or B movie), and there is no difference between them -- even in their degree of meagerness. The relative economic effects of these alternatives are similarly indistinguishable. The reader is left wondering what genuine actions, if any, the agencies are actually proposing.[36]

Apparently, the FWS was not the only agency that harbored such concerns. One week before the DEIS was issued, an EPA briefing statement anticipated that a major issue raised by the public

[33] Email from Mike Robinson, OSM, re: EIS Direction, October 10, 2001, (emphasis added).
[34] Email from Dave Densmore, FWS, re: EIS Direction, October 11, 2001.
[35] It is important to note that the only "substantive" changes proposed in the DEIS would weaken existing environmental standards, such as the Buffer Zone rule. See Section C, below.
[36] Email from Dave Densmore re: FWS Comments on Chapter IV, with Attachment: FWS Comments on 9/20/02 Draft of Chapter IV (Alternatives), September 30, 2002 (emphasis added).

would be: "Process v. Environmental Protection: Where's the meat? What is being proposed that will improve environmental protection? What proposals will place limits on MTM/VF?"[37]

Not only did the DEIS approach fail to meet the requirements of the original scope intended for the programmatic EIS, it completely ignored the millions of dollars and thousands of pages of technical and scientific studies that the agencies' staff had been working on for years. As aptly explained by the FWS's Mr. Densmore:

> The EIS technical studies carried out by the agencies – at considerable taxpayer expense – have documented adverse impacts to aquatic and terrestrial ecosystems, yet the proposed alternatives presented offer no substantive means of addressing these impacts. **The alternatives and actions, as currently written, belie four years of work and the accumulated evidence of environmental harm, and would substitute permit process tinkering for meaningful and measurable change.**[38]

The DEIS' failure to address meaningful alternatives disregards the findings of the studies on mountaintop removal and flies in the face of common sense – and it clearly violates the law governing the EIS process, the National Environmental Policy Act ("NEPA").[39] NEPA requires that Environmental Impact Statements describe (1) the "environmental impact of the proposed action," (2) any "adverse environmental effects which cannot be avoided should the proposal be implemented," (3) any "alternatives to the proposed action," and (4) any "irreversible or irretrievable commitment of resources which would be involved in the proposed action should it be implemented."[40] NEPA implementing regulations make clear that an EIS must "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public," and to "rigorously explore and objectively evaluate **all reasonable alternatives**."[41]

4-2

NEPA's requirement that federal agencies evaluate all reasonable environmentally distinguishable substantive alternative to agency actions and to fully evaluate the consequences of these alternatives is flatly violated by the mountaintop removal DEIS. The three "action alternatives" in the DEIS are purely process alternatives; they provide no meaningful basis for analyzing, much less reducing, the environmental impacts of continued federal approval of mountaintop removal operations. By failing to consider reasonable alternatives that would restrict the size, scope, and number of valley fills, the DEIS fails to consider a reasonable range of alternatives, as NEPA requires.

[37] Email from John Forren re: Briefing Outline, with Attachment: Briefing, Mountaintop Mining/Valley Fills (MTM/VF) Draft Programmatic Environmental Impact Statement, May 21, 2003.
[38] Email from Dave Densmore re: FWS Comments on Chapter IV, September 30, 2002 (emphasis added).
[39] 42 U.S.C. § 4321 *et seq.* NOTE: This section only addresses a few of the many ways the DEIS violates NEPA statutory and regulatory requirements; it is not meant to be a comprehensive evaluation of all NEPA violations evidenced by this DEIS.
[40] 42 U.S.C. § 4332(2)(C).
[41] 40 C.F.R. § 1502.14 (emphasis added).

In addition, NEPA requires that an EIS accurately portray the impacts of the proposed action, and alternatives to the proposed action.[42] NEPA requires that an EIS prepared by a federal agency include "a **detailed statement**" on "the environmental impact of the proposed action, ...any adverse environmental effects **which cannot be avoided should the proposal be implemented**, [and] alternatives to the proposed action."[43]

The alternatives analysis, including discussion of the proposed action is "the heart of the environmental impact statement."[44] The analysis, based in large part upon the environmental consequences section of the EIS, should "[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits."[45]

The environmental consequences section of the EIS "forms the scientific and analytic basis" for the required comparison of alternatives; this section must contain discussions of, *inter alia*, "direct effects and their significance, indirect effects and their significance," and "environmental effects of alternatives including the proposed action."[46] Effects that must be analyzed include "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect or cumulative."[47] Direct effects "are caused by the action and occur at the same time and place."[48] Indirect effects "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."[49] Cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."[50]

4-2

The mountaintop removal DEIS fails in this regard. According to claims made in the document, the "Preferred Alternative" – Alternative 2 – would, like the other "action" alternatives considered, result in "significant environmental benefits"[51] but this assertion is not backed up with any description of or factual information about what those benefits would actually be. At best, the DEIS further asserts that the coordinated permit process that comprises Alternative 2 might result in the identification of ways that could be used on a case-by-case basis to avoid or minimize adverse effects, but nowhere in the document do the agencies actually identify any actual resources that would be protected – at individual sites or on a cumulative basis – as a result of the selection of their preferred alternative.[52]

[42] 42 USC 4332 (NEPA 102(C & E)), 40 CFR 1502.14, 1502.16; 40 CFR 1508.8.
[43] 42 USC 4332 (NEPA 102(C)) (emphasis added).
[44] 40 CFR 1502.14.
[45] Id.
[46] 40 CFR 1502.16.
[47] 40 CFR 1508.8.
[48] 40 CFR 1508.8(a).
[49] 40 CFR 1508.8(b).
[50] 40 CFR 1508.7.
[51] DEIS II. B-17.
[52] *See* DEIS II. Section C "Detailed Analyses of the Actions to Address Issues." The title of this section is misleading in the sense that it contains no detailed analysis of the actions, including the preferred alternative.

Perhaps even more importantly, the DEIS fails to describe (either in detail or in general terms) the environmental resources that would be harmed under the agencies' preferred alternative. For example, the DEIS does not discuss the direct, indirect, or cumulative effects of Alternative 2 on stream losses, the consequential size of valley fills, future forest losses, effects on fish and wildlife resources, including endangered species, flooding or other environmental damage associated with mountaintop removal coal mining.[53]

This omission in the DEIS itself is especially striking, given that the scientific studies contained in the appendices so vividly describe the environmental destruction that has been and currently is being caused by mountaintop removal. As the Cumulative Impact Study makes clear, without new restrictions on mountaintop removal, these impacts are likely to double over the next decade. Yet, the DEIS itself contains none of the detailed analysis NEPA requires saying what impact – if any – the proposed action alternative would have on the future of these resources.[54] 4-2

Thus, a decision-maker reading the DEIS would not be able to figure out from this document that the federal action at issue is one that is destroying an environmentally sensitive area the size of one of the 50 United States (and not even the smallest one) – violating the very purpose of the NEPA analysis.

C. Elimination of Existing Protections, Such as the Buffer Zone Rule, Are Not Reasonable Alternatives

One of the most important components of current SMCRA law is the so-called buffer zone rule. This regulation, adopted in 1983 by the Reagan administration, prevents the OSM and state agencies from issuing permits for coal mining activities that would disturb land within 100 feet of streams, unless the permitting agency affirmatively confirms that the activities will not violate 1-10

[53] Id. In addition, under basic principles of administrative law, the agencies must do more than merely make the prescribed determinations but must support its determinations with substantial evidence. The D.C. Circuit has held that Administrative Procedure Act § 706(2)(A), which provides for reviewing courts to "hold unlawful and set aside" agency actions found to be arbitrary or capricious, "*enabl[es] the courts to strike down, as arbitrary, agency action that is devoid of needed factual support.*" Assn. of Data Processing v. Board of Governors, 745 F.2d 677, 683-84 (D.C. Cir. 1984) (emphasis in original; internal quotations and ellipsis omitted). Under this standard, the agencies must offer credible evidence, not mere speculation, to buttress factual conclusions. See, e.g., Cement Kiln Recycling Coalition v. EPA, 255 F.3d 855, 866 (D.C. Cir. 2001) (remanded where agency had failed to "demonstrate[]" relevant point with "substantial evidence -- not mere assertions"); Edison Electric Inst. v. USEPA, 2 F.3d 438, 446 (D.C. Cir. 1993) (agency's purported "justification on the record" rejected where it "consists of speculative factual assertions"); Chemical Mfrs. Assn. v. EPA, 28 F.3d 1259, 1266 (D.C. Cir. 1994) (same); United Distribution Cos. v. FERC, 88 F.3d 1105, 1187-88 (D.C. Cir. 1996)("the law requires more than simple guesswork"); Air Transport Assn. v. FAA, 254 F.3d 271, 279 (D.C. Cir. 2001) (agency "failed to provide any record justification" for a key assertion, but instead "simply assumed it was so").

[54] Under the arbitrary and capricious standard, an agency "must examine the relevant data and articulate a satisfactory explanation for its action including a "rational connection between the facts found and the choice made." Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962). An agency action can be arbitrary and capricious "if the agency . . . entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Motor Vehicle Ass'n v. State Farm Mut., 463 U.S. 29 (1983).

water quality standards and will not adversely affect water quantity, quality, or other stream resources.[55] This regulation is needed to implement the provisions of SMCRA that require the protection of water courses from mining damage.

Remarkably, all of the "alternatives" considered in the DEIS propose (or assume) that the Buffer Zone rule will be rewritten by the Bush administration to allow coal mining waste to be dumped into streams, burying them – essentially eliminating the stream "buffer" from the Buffer Zone rule. This is perhaps the most outrageous part of the DEIS. While the document overall fails to live up to the purpose of finding ways to minimize the already devastating effects of mountaintop removal by ignoring alternatives needed to limit the impacts of this form of mining, **the proposal to eliminate the Buffer Zone rule actually would increase the harm caused by mountainton removal by removing from law an important and long-standing limit on coal mining activities.**[56]

As noted above, the 1983 Buffer Zone rule protects streams from coal mining activities. In relevant part, the rule states that:

(a) **No land within 100 feet of a perennial stream or an intermittent stream shall be disturbed by surface mining activities**, unless the regulatory authority specifically authorizes surface mining activities closer to, or through, such a stream. The regulatory authority may authorize such activities only upon finding that-- 1-10

(1) **Surface mining activities will not cause or contribute to the violation of applicable State or Federal water quality standards, and will not adversely affect the water quantity and quality or other environmental resources of the stream**[ ][57]

The Bush administration's proposal, as distributed to regional groups in March 2003[58] would change the existing rule to state that:

(a) General. You must first obtain specific approval from the regulatory authority before conducting surface mining activities within 100 feet of a perennial or intermittent stream. Except as provided in paragraph (b), the regulatory authority may authorize such activities only after making a written finding that the activities will—

(1) Not cause or contribute to a violation of applicable State or Federal water quality standards.

(2) Be conducted to minimize disturbances to the quantity and quality of water in the stream. This finding need not be made with respect to any reach of the stream that is

[55] 30 CFR § 816.57.

[56] All four of the alternatives considered in the DEIS, including the so-called "no action alternative," contemplate changes to the existing Buffer Zone rule that would either weaken ("no action alternative") or explicitly (alternative 1) or implicitly (alternatives 2 and 3) eviscerate the rule. The DEIS therefore frustrates Congressional will and illegally evades the requirements of NEPA to consider "the alternative of no action" and compare the benefits of stream protection as it exists with any changes in existing law.

[57] 30 CFR § 816.57 (emphasis added).

[58] *See* Office of Surface Mining "Outreach Document: Planned Rulemaking to Clarify Excess Spoil/Stream Buffer Zone Requirements," March 21, 2003.

upstream of a sedimentation pond located within the stream channel, provided that the pond meets the location requirements of § 816.46(c)(1)(ii) of this part.

(3) Be conducted in a manner that minimizes disturbances and adverse impacts to fish, wildlife, and related environmental values of the stream.

(b) Placement of excess spoil in perennial or intermittent streams. The findings required in paragraphs (a)(1)-(3) do not apply to the construction of excess spoil fills in perennial or intermittent streams. To approve construction of fills in these streams, the regulatory authority must find that the applicant has—

(1) Minimized the creation of excess spoil to the maximum extent practicable as required under § 780.18(b)(3) of this chapter and § 816.102(b) of this part; and

(2) Designed the fill to avoid or minimize adverse impacts to perennial or intermittent streams to the extent required under § 780.16(c) of this chapter and § 816.97(f) of this part.

The proposed replacement of the Buffer Zone rule would obviously and specifically change the law to allow the dumping of coal mining spoil directly into these previously protected streams, with the only requirement being that the mining companies have "minimized the creation of excess spoil to the maximum extent practicable." This rule change would effectively remove the "buffer" from the buffer zone rule to create an illegal and unwarranted exception allowing coal companies to bury streams under valley fills.

1-10

The DEIS acknowledges that this change in the stream Buffer Zone ("SBZ") rule is in the works, but does not address the environmental effects that this change in law will have on the future of mountaintop removal coal mining. The DEIS states that:

> **OSM is currently preparing a draft proposed rule that would amend the rules at 30 CFR 816.57 and 817.57** to clarify the SBZ requirements . . . . **Exemptions to the SBZ requirements** would only be granted upon a demonstration by the coal operator, to the satisfaction of the SMCRA regulatory authority, that encroachment into the SBZ is necessary and that disturbances to the prevailing hydrologic balance at the mine-site and in associated offsite areas have been minimized.[59]

The DEIS' explanation for the proposal to eliminate the buffer from the Buffer Zone rule for valley fills is on its face nonsensical. The DEIS' rationale ignores the existing rule's plain meaning and is seemingly ignorant of the interpretation of the Buffer Zone rule by previous administrations.

The DEIS claims that applying the stream buffer zone rule under SMCRA to prohibit fills in intermittent and perennial streams would be inconsistent with existing Clean Water Act

[59] DEIS II.C-34 to C-35 (emphasis added). *See also*, DEIS II.B-7, regarding the "No Action Alternative" ("OSM initiated a SMCRA regulatory program enhancement to amend and clarify the stream buffer zone (SBZ) rules at 30 CFR 816.57 and 817.57"); DEIS II.B-19, regarding the "No Action Alternative" ("SMCRA buffer zone (SBZ) subject to interpretation"); DEIS II.C-1, regarding the "No Action Alternative" ("Current SBZ rule-making (OSM)"); DEIS II.D-2, regarding "Alternatives Considered but Not Carried Forward in this EIS," ("Use of the [existing] OSM SBZ rule was considered to implement the alternatives establishing valley fill restrictions for certain stream segments [but not carried forward]").

requirements allowing valley fills[60] and would therefore violate section 702 of SMCRA, which provides that SMCRA does not supercede, amend or repeal the Clean Water Act.[61]

In describing the proposed changes to the Buffer Zone rule in the so-called "No Action Alternative," the DEIS states:

> Historically, OSM has not viewed, applied, or enforced the buffer zone regulation to prohibit mining activities within the buffer zone if those activities would have less than a significant effect on the overall chemistry and biology of streams, i.e., the overall watershed or stream below the activity. Therefore, excess spoil fill construction within the buffer zone has been allowed if a demonstration of no significant effect on downstream water quality was made by the permit applicant to the satisfaction of the SMCRA regulatory authority.[62]

The DEIS' argument is flatly inconsistent not only with the text of the current rule, but also with the position taken by the United States in the litigation that actually was the source of this DEIS in the first place, *Bragg v. Rivenburgh*. In its brief in the 4th Circuit in that case, the United States argued that:

1-10

> SMCRA section 702 provides merely that SMCRA does not alter the existing regulatory schemes adopted by Congress in the [Clean Water Act] and other environmental statutes. . . . When Congress has intended that one statute should take precedence over another statute in the regulation of a particular activity, it has done so with language very different and much clearer than SMCRA section 702. . . While WVDEP has asserted that it would create an impermissible statutory "conflict" to read the buffer zone rule to establish a stricter standard than that established by the 404(b)(1) guidelines, such a statutory construction does not create any such "conflict" as that term is understood in the law. As the Supreme Court has held, two statutes can be said to conflict only when it is impossible to comply with both. **No such conflict arises if SMCRA is construed to prohibit some activities that would be authorized by the CWA, since it is possible to comply with both statutes by engaging in only those activities authorized by both statutes.**[63]

Thus, OSM's interpretation of the existing Buffer Zone rule in the DEIS is incorrect, and is directly inconsistent with the interpretation given by the United States before the 4th Circuit in Bragg. In addition, EPA's Office of Water warned OSM in December, 2002 that the DEIS' legal position on the Buffer Zone rule is incorrect, commenting that:

[60] This argument is especially cynical and disingenuous given that in May, 2002, the Bush administration rewrote 25-year-old Clean Water Act regulations prohibiting the disposal of waste material – including mountaintop removal waste – from being dumped in streams in an attempt to allow such waste disposal in waters to occur.

[61] DEIS II.D-2. *See* 30 U.S.C. § 1292(a)(2).

[62] DEIS II.C-34.

[63] Brief for the Federal Appellants, 4th Cir., No. 99-2683, April 17, 2000, pp. 45-49 (emphasis added) (internal citations omitted).

> There are fairly sweeping legal conclusions here that the stream buffer zone rule could not be used to determine allowable stream segments for filling because doing so would supercede the CWA, something [C]ongress precluded in SMCRA. The lawyers need to look at this more closely. I'm uncomfortable with the breadth of this argument...[64]

The DEIS' interpretation of the Buffer Zone rule, as supplied by OSM, is erroneous as a matter of policy and of law, and is an arbitrary reversal of the prior position taken by the U.S. government before the federal courts.

All of the alternatives considered in the DEIS, including the "No Action" alternative and the three "action alternatives," contemplate **changing** the Buffer Zone rule so that the rule is weakened or eviscerated. No alternative contemplates keeping the Buffer Zone rule in place as it currently exists. This failure to consider any alternative which includes the option of not changing current law violates NEPA, under which the EIS must "[i]nclude the alternative of no action."[65] **By illegally including a rule change in the "No Action" alternative, the DEIS attempts to evade a fundamental requirement of NEPA to consider the benefits of reasonable alternatives, including the alternative of leaving the law unchanged.** Rather, the DEIS assumes that under all alternatives spoil can be placed in streams and contains no analysis of the benefits of maintaining the current level of protection afforded by the Buffer Zone rule. Further, the DEIS' assumption that changing the Buffer Zone rule is part of the "no action alternative" violates SMCRA, which requires OSM to prepare an EIS on significant changes to the SMCRA regulations.[66] 1-10

D. The DEIS' Proposed Continued Reliance on the Use of Nationwide Permits for Valley Fills Is Illegal

The DEIS perpetuates the Corps' longstanding violation of the Clean Water Act, by relying upon issuance of general Nationwide Permits to authorize valley fills from mountaintop removal mining operations. All of the proposed alternatives discussed in the DEIS include the continued use of nationwide permits for future authorizations of valley fills.

Section 404(e) of the Clean Water Act authorizes EPA and the Army Corps to issue general permits for the discharge of dredged or fill material for categories of activities that are "similar in nature" when the discharges that will be permitted under the permits will cause "only minimal adverse environmental effects when performed separately and will have only minimal cumulative adverse effect on the environment."[67] 1-13

Currently, the Army Corps relies upon Nationwide Permit 21 (NWP 21), an overly-broad general permit that encompasses "Surface Coal Mining Activities," to authorize mountaintop removal mining valley fills to bury streams throughout Appalachia. Virtually every valley fill that has

[64] Email from Steve Neugeboren, EPA, re: MTM legal issues, January 7, 2003.
[65] 40 C.F.R. § 1502.14(d).
[66] *See, e.g.*, DEIS II.C-63 ("SMCRA Section 702(d) states that SMCRA rulemaking is a major Federal action requiring NEPA compliance.") (emphasis in original).
[67] 33 U.S.C. § 1344.

been permitted by the Army Corps in Appalachia has been pursuant to a nationwide general permit, as opposed to individual permits under the Clean Water Act.

Studies estimate that, over the last 10 years, mountaintop removal has already caused direct impacts to more than 1,200 miles of streams, including an estimated 724 stream miles that were covered by valley fills from 1985 to 2001.[68] The studies confirm that "[i]f mining permitting and mitigation trends stay the same, an additional thousand miles of direct impacts could occur in the next ten years. ...The majority of streams impacted are headwater streams."[69] These estimates are only for direct impacts to streams (i.e., the streams are buried or otherwise destroyed) and do not take into account the "indirect impacts" on streams such as elevation of selenium levels as well as changes to stream chemistry, temperature, flow, energy, sedimentation, or biota. The studies conclude that such effects may be irreversible, noting that: "[s]tudies seem to suggest that the impacts to the aquatic community downstream from fills may result from water quality impacts due to filling which may be extremely difficult or impossible to correct."[70]

In addition, the studies accompanying the DEIS document the enormous cumulative terrestrial impacts already caused by the sweeping deforestation that is part and parcel of mountaintop removal mining.[71] Besides those forests destroyed directly in order to access seams of coal below the mountaintops, those forests located down in the valleys that are filled are also extinguished, along with the wildlife that rely upon them. But for the general permits issued allowing "valley fills" under the Clean Water Act, many of these forests and their associated wildlife would not be destroyed. As noted above, the destruction of these streams, forests, and associated wildlife is, for the most part, irreversible. 1-13

The DEIS studies clearly establish that greater than minimal adverse environmental effects have occurred, are occurring and will continue to occur as a result of mountaintop removal mining valley fills. Many of the authorized fills cause greater than minimal adverse effects individually, and there can be no question that the cumulative impacts of valley fills have already exceeded the "minimal adverse effects" threshold established by the Clean Water Act. Thus, no additional general permits for valley fills may be issued by the Army Corps, nor can existing general permits be relied upon to authorize such fills, or as a basis for considering alternatives under the DEIS.[72]

[68] DEIS, ES-4.
[69] DEIS, App. I at 67.
[70] Id. at 75.
[71] As noted above, the Clean Water Act prohibits the issuance of general permits to fill waters when the activity will have more than a "minimal adverse **environmental** effects when performed separately and will have only minimal cumulative adverse effect on the **environment**." 33 U.S.C. §1344(e) (emphasis added). Thus, the analysis of the harm caused by the activity proposing to discharge pollutant into water is not limited to the harm caused only to the aquatic environment, but necessarily consider the harm that would result to the environment generally, including the terrestrial environment.
[72] We herby incorporate by reference additional reasons why the continued use of NWP 21 violates the Clean Water Act as stated in NRDC's October 2001 comments on the NWP proposal published in the Federal Register at 66 Fed. Reg. 42070 (August 9, 2001).

E. The DEIS' Mitigation Analysis Is Fundamentally Flawed Because Burial of Streams Cannot Be Mitigated.

The DEIS further violates NEPA by failing to adequately analyze the effectiveness of proposed mitigation measures. Specifically, the DEIS wrongly relies on the effectiveness of in-kind mitigation to justify failure to recommend other stream protection measures[73] despite the fact that the DEIS and its accompanying studies admit that on-site headwater stream reconstruction has never been successfully accomplished and that the technology to reconstruct free-flowing streams does not even exist. Thus, there is no rational basis for the DEIS' reliance upon stream mitigation as a method of reducing impacts of mountaintop removal mining to an environmentally acceptable level.

The DEIS states that "[m]itigation for lost stream functions is important to ensure that significant degradation to waters of the U.S. does not occur"[74] and that "[I]n-kind mitigation must restore or create headwater stream habitat on the reclaimed mine area to replicate the functions lost form direct stream loss."[75]

The Fish and Wildlife Service's reviewer of the DEIS has commented that "...the ability of compensatory mitigation to reduce impacts to minimal levels is the linchpin of each of the alternatives" but that such mitigation for buried streams "is an untested, unproven concept, and many believe it can't be accomplished."[76] 4-2

The DEIS states: "[w]hile proven methods exist for larger stream channel restoration and creation, the state of the art in creating smaller headwater streams onsite has not reached the level of reproducible success required for these efforts to be reasonably relied upon programmatically as an option for full compensatory mitigation."[77] And elsewhere: "[d]uring the development of this EIS, technical representatives from OSM and from West Virginia have suggested that groin ditches constructed along the edges of fills may represent an opportunity for in-kind replacement of streams with an intermittent or ephemeral regime. To date, no drainage structures observed appear to have successfully developed into a functional headwater stream."[78]

While it is true that NEPA does not require an agency to mitigate adverse environmental impacts, where, as here, "an agency's decision to proceed with a project is based on unconsidered, irrational, or inadequately explained assumptions about the efficacy of mitigation measures, the decision must be set aside as 'arbitrary and capricious.'"[79]

[73] DEIS II.C-23 (stating that burial of streams by valley fills "can be successfully offset by a comprehensive mitigation proposal").
[74] DEIS II.C-49.
[75] DEIS IV.B-9.
[76] Email from Cindy Tibbott, FWS, re: Chapters I & II comments, November 13, 2002.
[77] DEIS II.C-50.
[78] DEIS III.D-18 – D-19.
[79] Stein v. Barton, 740 F. Supp. 743, 753-54 (D. Alaska 1990) (conclusion that mitigation "will prevent any significant reduction in fish habitat" was arbitrary in light of evidence in the record demonstrating mitigation failures).

In short, **the mountaintop removal DEIS relies upon mitigation "alternatives" that have little basis in reality, and no credible prospect of success. Accordingly, the DEIS cannot satisfy NEPA's requirements for a proper alternatives analysis.** 4-2

F. The Economic Impact of Reducing the Size of Valley Fills Would Be Minimal

The failure to consider new restrictions on mountaintop removal – especially objective limits on the size of valley fills – cannot be justified on economic grounds. Studies prepared for the DEIS concluded that limits on valley fills would not only have significant environmental benefits, but also that the economic consequences would be moderate, or relatively insignificant. Even after the first economic study was rewritten for the DEIS in order to be more sympathetic to the coal industry's concerns, the second version of the study concluded that the economic costs would be small.

As part of the programmatic EIS effort, EPA contracted with Hill & Associates (H&A), an economic modeling firm, to model the economic impacts of the various alternatives – still under consideration at that time – for restricting the size of valley fills. In a December 2001 "final" report to EPA, H&A concluded that even the most severe restriction on valley fills studied in the report – one that barred fills covering watersheds more than 35 acres – would raise the price of coal by only $1 per ton and raise the cost of electricity by a few cents per megawatt-hour.[80] In a March 2002 slide show presentation to senior EPA officials in its Washington, D.C. headquarters, EPA Region 3 officials characterized these effects as "a minimal impact on the price of coal" and "virtually NO impact on electricity prices."[81] The presentation revealed that: 11-9-2

- Sufficient coal reserves appear to exist under the 250, 150, 75, and 35-acre restriction scenarios necessary to meet demand during the 10 year study period . . .
- Restricting valley fills to 250, 150, 75, or 35-acre watersheds will increase the price of coal by only $1/ton under each respective restriction scenario.
- Restricting valley fills to 250, 150, 75, or 35-acre watersheds will increase the price of electricity by only a few cents/MWHr under each respective restriction scenario.[82]

Another EPA draft study, dated April 23, 2002, concludes that, even under the most restrictive option studied – limiting the size of valley fills to 35-acre watersheds – annual average impacts to total statewide employment in Kentucky and West Virginia are no more than 0.3% of total year 2000 employment. In addition, this study found that there are no "notable differences in [wholesale electricity] prices or generation levels among the alternative [restrictions] . . . due to the competitive nature of the energy markets."[83]

[80] Hill & Associates, "Economic Impact of Mountain Top Mining and Valley Fills, Environmental Impact Statement," for U.S. EPA, December 2001. The H&A study assumed that valley fill restrictions would apply immediately to all existing mines, while a more likely scenario is that new restrictions would only apply to future permits. Thus the study overstates the likely economic impacts of limiting future Clean Water Act § 404 permits to dump mountaintop removal waste into waters.
[81] Mountaintop Mining EIS Presentation, EPA Office of Water, Office of Federal Activities, and Office of General Counsel, March 5, 2002 (emphasis in original).
[82] Id.
[83] Gannett Fleming, Draft Economic Consequences Study for MTM/VF EIS, April 23, 2002.

Apparently because the coal industry was unhappy with the conclusions of the first "final" report, Hill & Associates was directed to reopen their study by conducting a "sensitivity analysis" that consisted mostly of interviewing coal company officials to incorporate their opinions of the economic effects of limiting the size of valley fills.[84] Even with this industry input, the economic consequences of limiting the size and location of valley fills was found to be minimal.

Thus, the May 30 DEIS finds that "in most situations the restriction would change the price of coal to less than one dollar per ton," and "[t]he price of electricity would continue to rise approximately 1 to 2 percent across the scenarios, the impacts due to restrictions will have little effect on price."[85] Even after adjusting the models based on the coal industry's inputs, the change in the price of coal rose to only two dollars a ton.

Morgan Worldwide Consultants, Inc. (MWCI) conducted an analysis of the economic reports. As OSM's Mike Robinson observed in a January 2003 e-mail, the MWCI analysis concluded "...it is evident that the electricity prices are quite insensitive to the MTM/VF restrictions, showing differences of only 1%-2%, or 3% at the maximum."[86] Perhaps recognizing this might be a public relations issue for the agencies – since no other reason to avoid limiting the size of valley fills had been produced – a background memo for the agencies' "Communications Team" dated January 16, 2003, warns that "[a]s part of the studies conducted in conjunction with the DEIS were studies to assess the economic impacts that would result from implementing actions considering limits on the size of valley fills. Information from the economic studies ... suggest that limits on the size of fills will have only minimal economic consequences on coal and electricity prices."[87]

11-9-2

Therefore, one of the coal industry's – and this administration's – primary rationales for failing to rein in the worst abuses caused by mountaintop removal coal mining is refuted by its own economic studies.

Conclusion

The environmental and economic studies prepared for the mountaintop removal programmatic EIS do not lend any support to the administration's proposed "Preferred Alternative" that would result in the weakening of existing environmental laws that limit the size and location of valley fills. In fact, the studies support the opposite conclusion: mountaintop removal must be much more strictly limited to head off additional and significant devastation of the Appalachian region's natural resources – and the communities that depend on those resources now and for future generations.

The DEIS represents a wholesale retreat from the promise made by the federal government in 1998, when the agencies involved pledged to develop a programmatic EIS to minimize to the maximum extent practicable the environmental harm caused by mountaintop removal and valley fills – not prolong or exacerbate the problem. The DEIS also violates or calls for changes in long-standing environmental protections that would violate numerous federal environmental laws, including the National Environmental Policy Act, the Clean Water Act, and the Surface Mining Control and Reclamation Act. 4-2

As stated above, the DEIS must be rewritten to consider substantive alternatives that would minimize the environmental harm caused by mountaintop removal and select a preferred alternative that would truly protect the resources and people of the region.

Sincerely,

Joan Mulhern
Senior Legislative Counsel
Earthjustice

Daniel Rosenberg
Staff Attorney
Natural Resources Defense Council

Fred Sampson
President
West Virginia Environmental Council

Liz Garland
Issues Coordinator
West Virginia Rivers Coalition

Melissa Samet
Senior Director, Water Resources
American Rivers

Julie Sibbing
Wetlands Specialist
National Wildlife Federation

John Blair
President
Valley Watch, Inc.

Bob Perciasepe
Chief Operating Officer and Acting Senior Vice President for Public Policy
National Audubon Society

Ed Hopkins
Environmental Quality Director
Sierra Club

Sara Zdeb
Legislative Director
Friends of the Earth

Norm Steenstra
Executive Director
West Virginia Citizen Action

Andy Mahler
Coordinator
Shagbark

[84] Although the "Phase II" H&A study states that stakeholder meetings were held with "members of the environmental community, representatives from academia, governmental agency personnel, and technical representatives from the coal mining industry," under the heading "Findings from Individual Stakeholder Meetings" the report states that "[s]hortly after the initial "kickoff" meeting of this project, a team of technical specialists from Hill & Associates made separate visits to individual coal mining companies to research actual "on-the-ground" impacts experienced and projected due to valley fill restrictions. Coal producers representing approximately 60% of the affected surface mine tonnage in southern West Virginia and eastern Kentucky were visited." DEIS, App. G "Phase II Study" at 6.

[85] DEIS App. G, p. 6 (summary of Phase II Economics study by Hill and Associates) (emphasis added).

[86] Email from Mike Robinson re: H&A economic analysis, citing Letter from Morgan Worldwide Consultants, Inc., January 10, 2003.

[87] Mountaintop Mining / Valley Fill DEIS Background Information for Communications Team, January 16, 2003, p. 2 (emphasis added).

REC'D DEC 3 1 2003

Potomac Valley Audubon Society

www.potomacaudubon.org

P.O. Box 578
Shepherdstown, WV 25443

December 26, 2003

Mr. John Forren
U.S. EPA (3A30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

Regarding: Mountaintop Removal and Valley Fills

I am writing this letter on behalf of the Potomac Valley Audubon Society. We are a Chapter of the National Audubon Society with a membership of approximately 600 members in the eastern panhandle counties of West Virginia.

The Potomac Valley Audubon Society (PVAS) is opposed to mountaintop removal and valley fills. The Clean Water Act and Surface Mining Laws require the government to prohibit the use of valley fills and mountaintop removal.

Scientific studies document the widespread and irreversible damage that mountaintop removal and valley fill is having on Appalachia, but yet the Environmental Impact Statement (EIS) rejects the science based restrictions related to the size of the fill, cumulative impacts, types of streams affected, and value of the aquatic resources in the region.

We specifically oppose any changes that would weaken the laws and regulations that protect clean water. In particular, we oppose the proposed elimination of the stream buffer-zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced. We do not support Alternative 1, 2 or 3 as described in the EIS report. These options do not protect Appalachian forests, water, or communities. 1-10 1-5

A proud partner of the United Way of Berkeley and Morgan Counties, United Way of Jefferson County and the Combined Federal Campaign.

We value the aquatic resources, biologically rich forest and stream ecosystems, the streams themselves, and our drinking water. Moreover, no wildlife habitat destruction studies have been forthcoming in this matter, and the impact of MTR on all wildlife is unknown. Leveling mountains and burying streams needs to stop and these issues need to be more fully evaluated.

Very truly yours,

Diana L. Mullis
President

REC'D DEC 3 1 2003

1

December 20, 2003

Coal River Mountain Watch
Post Office Box 651
Whitesville, West Virginia 25209

Mr. John Forren
United States Environmental Protection Agency
1650 Arch Street
Philadelphia, Pennsylvania 19103

To Whom It May Concern:

Coal River Mountain Watch is a local grassroots organization dedicated to protecting the heritage and environment of the West Virginia coalfields while also promoting vibrant and sustainable communities. Our members and staff all have deep personal connections to the mountains of West Virginia. Virtually all of our staff and members have personal connections to the coal industry.

Our organization feels it is tragic that the hard working miners and families of this region have been forced to believe they must destroy the physical and social fabric of our communities in order to make a living. We firmly believe that this situation is not accidental, nor is it the inevitable outcome of economic circumstances. The chronic economic problems of central Appalachia are the result of extractive industry's economic dominance over the region, and mountaintop removal coal mining is its poster child. The people of central Appalachia are hunters, fishermen, farmers and woodsmen in addition to coal miners. It is truly a shame that people have to choose between feeding their families and destroying an ancestral hunting ground. If other employment opportunities existed in our region, we believe our people would take them rather than flatten their mountains and forests.

Against this regional and organizational background, Coal River Mountain Watch offers the following comments on the Draft Environmental Impact Statement on Mountaintop Removal / Valley Fill coal mining:

2

Though the EIS is an enormous document that includes many detailed scientific studies, we believe the fatal flaw in the statement is readily apparent in the executive summary. This flaw is in the very structure of the statement and reveals the influence of the industry in the preparation of the document. Unfortunately, this flaw undermines the hard work of the scientists employed by the study.

Following standard procedure for an EIS, the "no action" alternative would make no changes to the existing practice of mountaintop removal coal mining. Coal River Mountain Watch adamantly argues that for the EIS to be a credible document, the abolition of mountaintop removal must be vigorously evaluated as a legitimate alternative. The lack of an abolition option is a glaring omission that points to the coal industry's influence in the preparation of the EIS. 1-8

Two of the "action" alternatives would build on existing pieces of the permitting framework. The "action" alternative that would eliminate the so-called Nationwide-21 permit and subject all permits to a more thorough individual review IS NOT an acceptable concession to the environmental community. Coal River Mountain Watch believes that this "action" alternative should be imposed as a MINIMUM interim reform while other proposals are considered.

An "action" alternative that would permit all mines under Nationwide-21 is blatant pandering to the coal industry. Coal River Mountain Watch believes that the Nationwide-21 permit is, in fact, illegal under existing mining laws. Our organization is currently participating in litigation to establish this fact. Regardless of its legality, this permit has been recklessly applied to surface mines throughout Appalachia, allowing them to operate without proper oversight or safeguards to the public. 1-5

The reason for including this alternative, we believe, is that it creates an illusion of what the coal industry likes to call "balance." It is worth repeating that we DO NOT regard the elimination of Nationwide-21 as a concession. The illusion of balance played out in the EIS public hearing held in Charleston. The coal industry played its part by arguing in favor of the Nationwide-21 permit.

Concerned citizens largely refused to play their part. Instead of arguing in favor of the option to eliminate Nationwide-21, most argued that the EIS is a flawed document. These comments ranged from the poetic (the EIS is a "shame and a sham") to the blunt ("this is bullshit").

The EIS has a built in escape hatch for its creators. The third "action" alternative is a vague statement calling for more cooperation between permitting agencies to expedite the review process. This option is truly obscene. This option contradicts the volumes of scientific evidence included in the EIS, all of which testifies to the adverse effects of mountaintop removal and valley fills on the environment. The vague generalities of the option and its emphasis of expediting permit review are blatant gifts to the coal industry. The entire issue of mountaintop removal coal mining has arisen because the industry has exploited similar vagaries in the Surface Mine Control and Reclamation Act.

If adopted, this "action" alternative would have no substantial difference from the "no action" alternative. By choosing this (no) action alternative, the EIS authorities can complete their balance charade. They can choose to "act" by adopting a proposal that will allow them to take virtually no action. There would be no substantial changes to current mountaintop removal practices. In fact, the proposed "action" would directly contradict the purpose of the EIS and the extensive scientific data included in it. 1-5

We are dismayed by the EIS. It does not fulfill its court-ordered mandate. While the science in the statement testifies to the adverse impacts of mountaintop removal, the summary and proposed alternatives does not honestly consider that evidence or the impacts of mountaintop removal on the citizens of central Appalachia.

Coal River Mountain Watch believes that mountaintop removal coal mining is human, economic and ecological disaster that should be completely abolished. The Nationwide-21 permit should be eliminated as an initial step towards reforming surface mining in accordance with already existing laws. But this 1-9

step in no way adequately addresses the needs of coalfield residents in central Appalachia.

Coal River Mountain Watch recommends that the Draft EIS be rejected. Rather than make cosmetic changes to existing permitting policies and procedures, we recommend that the EIS provide leadership in developing new standards for coal mining. For the EIS to be regarded as a legitimate document, it must include a thoroughly evaluated plan for abolishing mountaintop removal. 4-2

On behalf of our members, staff and board of directors,

Janice Nease

Janice Nease, Executive Director

Bill Price

Bill Price, President

CATHOLIC COMMITTEE OF APPALACHIA

P.O. Box 62, Wittensville, KY 41274 (606) 297-8792 ccappal@foothills.net

Catholic Committee of Appalachia

Executive Director
Robbie Pentecost, OSF
Louisaville, Kentucky
ccappal@foothills.net

BOARD OF DIRECTORS

Chair
Patricia Peters, OP
Huntsville, West Virginia
sprotop@hsgnet.com

Vice-Chair
Jan Barthel, OSB
Martin, Kentucky
lsilbosb@hotmail.com

Secretary
Mary Dennis Lenisch, PBVM
Washburn, Tennessee
dennisphvm@aol.com

Treasurer
Catherine Ruenzhlog
Abingdon, Virginia
sjrlrl@preferred.com

At-Large
Jeanette Kirkhope
Spencer, West Virginia
siftofreegrace@yahoo.com

Arnie Simonse
Pineville, West Virginia
arnoldsimonse@aol.com

Michelle Lozito
Bristol, Virginia

John Rausch, Oblenoxary
Stanton, Kentucky
jgrausch@bellsouth.net

CORA Commissioners
Kathy Schmitt
St. Paul, Virginia
kschmitt@richmonddiocese.org

Christine Ramirez
Clintwood, Virginia
stjoes@xxxx.net

July 22, 2003

Hearing on Mountain Top Removal:

At it's 1998 Annual Meeting, the members of the Catholic Committee of Appalachia passed a resolution calling for the end of mountain top removal and valley fill strip mining. Attached is a copy of that resolution.

The Catholic Committee of Appalachia stands committed to this resolution today! The results of the devastating flooding in West Virginia and Eastern Kentucky, although identified as "Acts of God," are directly related to the current mountain top removal and valley fill strip-mining practices. Many poor communities have been destroyed with little or no resources to rebuild. Many of these communities, where flooding to this degree has not been seen in the last 100 years, have experienced several floods within the last few months. Lives have been lost, communities demolished, hope destroyed! It's time we hold those responsible accountable.

For more than 30 years, the Catholic Committee of Appalachia -- whose memberships include Bishops, clergy, religious sisters and brothers, and the laity - has been a voice for the powerless and for the sacredness of the earth. Our membership expands the entire Appalachian region and even beyond. Many of our members work in these areas devastated by the floods. We stand as a Church calling for those with legislative power to stop a practice that detrimentally impacts the poor and the land at the benefit of those with wealth. 1-9

On behalf of the members of the Catholic Committee of Appalachia, I call for the end of mountain top removal and valley fill strip mining. We will continue to mobilize, in collaboration with other committed groups, to end this violence to our land and people!

It is with gratitude that I submit this letter and attached Resolution. We appreciate the opportunity to share with you our experiences, as people of faith, of devastation and frustration. On behalf of the Catholic Committee of Appalachia, thank you!

Standing with the mountains and God's people,

Sister Robbie Pentecost, OSF
Executive Director

Resolution on Mountain Top Removal/Valley Fill Strip Mining

The following resolution was passed unanimously by Catholic Committee of Appalachia members present at the 1998 Annual Meeting: "Voices of Sustainability."

Whereas, Psalms 24:1 firmly reminds us that "The Earth is the Lord's, and the fullness thereof; and the world, and they that dwell therein," and

Whereas, "God's covenant is with all living creatures" (Genesis 9:9) and

Whereas, "Christ came to redeem all Creation (Colossians 1:15-20 and Romans 8:21), and

Whereas, we are called to be stewards in right relationship with creation (Genesis 1:26-28), and

Whereas, the Commission on Religion in Appalachia (CORA) and its member denominations have affirmed "an economics of stewardship which recognizes that meeting human need and caring for the earth and its resources are the basic essentials in any system which is faithful to the Creator". (Economic Transformation, the Appalachian Challenge, CORA, short version, page 5) and

Whereas, mountain top removal coal mining is extremely profitable to the coal companies who practice it, and

Whereas, a large part of its profitability is that fewer miners are required than in the usual traditional methods of coal mining, and

Whereas, entire tops of mountains have been removed in the Appalachian areas of the states of West Virginia, Virginia, Kentucky, Pennsylvania, Tennessee, and Ohio, and

Whereas, this removal of mountaintops has resulted in severe and unlawful damage to the homes of persons living in the nearby communities, along with damage to wells, the bombarding of their homes with flyrock, and massive amounts of dust, and

Whereas, the millions and millions of tons of earth and rock removed from the tops of mountains are dumped into the valleys next to these mountains totally destroying the springs and the head waters of streams in these valleys, along with all animal and plant life in them, and

Whereas, mountain top removal mining, by destroying home places, is also destroying ancestral ground, sacred ground where generations after generations have lived, gone to church, married, made and birthed babies, taken family meals, slept in peace, died and been buried, and 1-9

Whereas, Environmental Protection Agency staff has stated that the long-term effects of mountain top removal mining is unstudied and unknown and that increasing the acreage of these valley fills prior to studying the long-term effects on the environment is ill-advised, and

Whereas, the Appalachian region has a long history of outside corporations profiting from the extraction of the region's resources in such a way that the prosperity is not equitably shared with the residents of the region, and that the environment has been damaged by such outside resource extraction, and that this damage harms the region's current economy and future economic potential, and

Whereas, grassroots organizations and regional coalitions working in partnership with the Coalition on Religion in Appalachia (CORA) and its denominational partners are responding to the increasing use of mountain top/valley fill by coal mining companies and these organizations are taking action to try to protect the ecological integrity of the region and to publicize the need for economic development which benefits the people of Appalachia, and

Whereas, the sanctity and sacredness of all life and the natural environment created by God should not be destroyed in the name of corporate profit,

Therefore, be it resolved, that the Catholic Committee of Appalachia (CCA) and its members implore the Governors, legislatures, and other appropriate agencies in the Appalachian coal producing states to require that mountain top removal/valley fill mining be stopped and it not be resumed until scientific study of its long-term effects on human life and the natural environment has been accomplished; and

Implementation: CCA members and the Board of Directors agree that, to the extent they are able, they will contact their respective Governors, legislators, and representatives of mining enforcement and environmental protection by phone, fax, mail or e-mail. CCA members and its Board of Directors will inform these parties of CCA's position on mountain top removal/valley fill strip mining as outlined by the above. The CCA office will be responsible for keeping track of how the resolution is being implemented. Please let the CCA office know who you are contacting. Relay this information to: CCA, PO Box 62, Wittensville, KY 41274 phone (606) 297-8792. e-mail:ccappal@foothills.net.

Audubon

REC'D JAN 0 9 2004

1150 Connecticut Ave, NW #600
Washington, D.C. 20036
Tel: 202-861-2242
Fax: 202-861-4290
www.audubon.org

January 6, 2004

John Forren
U.S. EPA (3E30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

National Audubon Society submits the following comments on the Draft Programmatic Environmental Impact Statement (DEIS) on Mountain Top Mining/Valley Fill (MTM/VF) in the Appalachian region of the eastern United States. Audubon is concerned about the severe impacts of MTM/VF on a variety of terrestrial and aquatic organisms. However, for the purposes of this comment letter our main concern is on impacts to migratory birds. We find that the DEIS fails to meet the requirements of the National Environmental Policy Act (NEPA) and, therefore, is inadequate. The DEIS is inadequate in that it fails to adequately assess the impacts, including cumulative impacts of MTM/VF on migratory birds, fails to consider a reasonable range of alternatives, and fails to adequately assess measures to mitigate unavoidable impacts to birds. 4-2

Of particular to concern to Audubon is the impact of MTM/VF on Cerulean Warblers. Audubon is one of several groups that have petitioned the U. S. Fish & Wildlife Service (FWS) to list the species as threatened under the Endangered Species Act (ESA). As the FWS has acknowledged, the Cerulean has experienced a precipitous population decline over the past 36 years. This decline is due to loss of habitat both in the United States and South America. In our January 21, 2003 comments submitted to the FWS regarding ESA listing for the Cerulean, we emphasized that one of the major sources of current and future habitat loss is surface coal mining operations in West Virginia and Tennessee, the core of the species' population abundance and breeding area. These mining operations destroy the forest habitat inhabited by Ceruleans. Mining in recent years has led to an increase in the decline of this species in the Appalachian region, and continued mining operations, as proposed in the draft EIS, will only increase the need for listing the species under the ESA. The draft EIS fails to adequately address this important issue. 8-1-2

The goal of NEPA is to ensure informed decision-making regarding proposed actions that may adversely affect the environment. To achieve this goal, NEPA requires agencies to take a "hard look" at the environmental consequences of the proposed action before it is taken. This means that an EIS must fully disclose environmental impacts; consider a reasonable range of alternatives, including alternatives that minimize environmental impacts; fully assess cumulative impacts of the proposed action; and assess measures to mitigate unavoidable environmental effects. The draft EIS fails to meet these requirements. 4-2

First, the Draft EIS fails to fully disclose the effects of MTM/VF on migratory birds, including Cerulean Warblers. Cerulean Warblers have suffered a precipitous 80% decline in population over the past 36 years. Because of this dramatic drop in population, Audubon and several other conservation organizations have petitioned the Fish and Wildlife Service (FWS) to list the species as threatened under the ESA. In response, the FWS determined that sufficient information was provided to undertake a status review as required under the ESA. That review is still ongoing. The core of the Cerulean's breeding range is largely within the EIS study area. Since Ceruleans require large tracts of intact forest for successful breeding, mountaintop mining within the study area will have a dramatic negative impact on Ceruleans. Research completed in 2002 by Drs. Weakland and Wood at West Virginia University provides the best information to date on the effects to Cerulean Warblers from the forest loss and fragmentation that occurs with mountain top mining. Inexplicably, this research was not included in the draft EIS, even though it was available at the time the EIS was prepared and the FWS strongly urged that it be included. Because the draft EIS fails to include the Weakland and Wood research – the best scientific information available – the EIS fails to fully disclose the effects of MTM/VF on Cerulean Warblers. Similarly, the draft EIS also fails to fully disclose the cumulative effects of past and projected future mining on Ceruleans. In particular, the EIS fails to acknowledge that the Cerulean is listed on the U.S. Fish and Wildlife Service's (FWS) 2002 Birds of Conservation Concern. That list includes all species for which special management actions and habitat conservation actions should be undertaken by federal agencies in order to avoid continued population decline and potential future listing under the ESA.

Second, the EIS fails to consider a "reasonable range of alternatives" as required by NEPA. The alternatives considered in the draft EIS are merely different variations on regulatory streamlining. The draft EIS provides no alternative that includes protecting some important habitat areas from mining or changing the methods of mining or mitigation in a way to minimize, with certainty, the environmental consequences of MTM/VF. This is not only a violation of NEPA, but it appears to also be contrary to the settlement agreement that was the impetus for this EIS. The failure to include alternatives that protect some migratory bird habitat from destruction is also a violation of Executive Order 13186 which requires federal agencies to cooperate with the FWS in order to promote the conservation of migratory birds. This draft EIS should be withdrawn and a new EIS prepared that includes additional alternatives including a environmentally preferable alternative that analyzes changes to current mining practices that ensure habitat loss and other adverse effects are minimized. 8-1-2

Finally, the draft EIS fails to adequately assess mitigation measures for the loss of hardwood forest habitat. The draft EIS suggests that mined areas could be reforested. However, the EIS also concedes that new methods of forest reclamation are untested and that given the conditions needed for reforestation, it is not likely that reclamation would be successful. The draft EIS also suggests that some areas might be replaced with grassland habitat for "rare" eastern grassland species. It is inappropriate to suggest converting one habitat type to another is adequate mitigation. Thus, these suggestions will not, in fact, mitigate the environmental devastation caused by MTM/VF. Migratory birds, and Cerulean Warblers in particular, will suffer population declines because of habitat loss due to mining activities. Conversion to grassland will be of no benefit to Ceruleans and, even if reforestation were successful (which is doubtful) it will be hundreds if not thousands of years before suitable habitat for Ceruleans is reestablished. Mitigation is really not possible, a point the draft EIS fails to acknowledge. The only option that comes close to mitigation is to identify core areas for Ceruleans and other migratory birds and ban mining in those areas.

In sum, the draft EIS fails to adequately meet the requirements of NEPA in its assessment of impacts to migratory birds within the study area, particularly Cerulean Warblers, for which considerable information exits. In addition, the EIS fails to consider a reasonable range of alternatives and fails to adequately assess 4-2

mitigation measures. Therefore we ask the agencies to withdraw this draft EIS and prepare a new draft that remedies the flaws in this EIS. 4-2

Thank you for considering these comments.

Sincerely,

Bob Perciasepe
Chief Operating Officer and Acting
Senior Vice President for Public Policy
National Audubon Society

REC'D JAN 0 7 2004

Kentucky Waterways Alliance
854 Horton Lane, Munfordville, KY 42765-8135
270-524-1774 Director@KWAlliance.org

December 31, 2003

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

RE: Mountaintop Mining/Valley Fills in Appalachia, Draft Programmatic Environmental Impact Statement

Dear Mr. Forren,

I submit these comments on behalf of the Kentucky Waterways Alliance regarding the Mountaintop Mining/Valley Fills in Appalachia Draft Programmatic Environmental Impact Statement. These comments apply to all the agencies who participated in the EIS and should be considered in any decisions that the US Army Corps of Engineers, US EPA, US Fish & Wildlife Service, US Department of Interior, Department of Surface Mining and West Virginia DEP make based on the EIS.

The Kentucky Waterways Alliance, Inc. (KWA) is a statewide nonprofit organization dedicated to protecting and restoring Kentucky's waterways and their watersheds by building effective alliances for their stewardship. We have many members who live in eastern Kentucky and care about the streams in the Appalachia region. Our members fish and eat fish from these streams, swim, canoe and otherwise enjoy the beauty of these waters and reply upon them for drinking water and other beneficial uses.

General comments and observations

Over 30 studies were funded as a part of this court-settlement investigation into the impacts of mountaintop mining and associated excess spoil disposal valley fills. The studies in the EIS demonstrated that mountaintop mining and valley fills have already caused extensive ecological harm to Appalachia, destroying almost seven percent of forests in the region and burying or damaging nearly 1,200 miles of headwater streams. Ironically, the studies also indicated that placing tighter restrictions on the use of valley fills would have a negligible impact on the economy. Yet with the proposing of the three alternatives you have chosen to completely ignore the scientific and economic studies in your own reports and current Clean Water and Surface Mining Laws to present a so called "status quo option" (that eliminates the current stream buffer zone rule), and two other options that would make these destructive and unnecessary practices easier. 1-5

Printed on recycled paper

All three recommendations contained in the EIS report are completely irresponsible and illegal under the Clean Water Act. They will not protect our stream or our forest ecosystems. Equally alarming, they will not protect our communities and families. They will not solve any of the problems caused by mountaintop removal mining and valley fills. Instead, the governmental agencies charged with enforcing the laws have used the EIS process to develop a series of rule changes that will make it easier for coal companies to get permits for mountaintop removal mining and valley fills. 1-5

The EIS disregards all scientific evidence and current Clean Water Act (CWA) and Surface Mining (SMCRA) laws in an attempt to justify and even encourage the practices of mountaintop mining and valley fills. The report rejects even considering specific restrictions on the use of valley fills based on size, cumulative impacts, types of streams, or the high value of the aquatic resources in the region.

KWA does not support any of the three alternatives in the report, but believes that the status quo (Alternative #1) is the least harmful to the natural resources and people in Appalachia. However, even Alternative #1 contains significant changes to the Stream Buffer Zone rule that we believe must be eliminated and are discussed in detail below. In addition, we believe it is very misleading to call this option the "status quo" since it proposes significant weakening of stream protections by eliminating the Stream Buffer Zone rule. 1-1

Specific comments on all three alternatives:
Stream Zone Buffer Rule and Excess Spoil
All three of the alternatives presented would do away with a 25-year-old rule that says mining impacts cannot come within 100 feet of streams (stream buffer zone rule). In March of 2003, the Office of Surface Mining (OSM) released an Outreach Document that also proposed the elimination of the stream buffer zone rule under the guise of consistency with the excess spoil rule. KWA submitted comments on this document to OSM but apparently those comments have been disregarded as the elimination of this rule is proposed again in the EIS for all three alternatives. I will reiterate portions of our comments on the Outreach Document herein, for the record.

There is no conflict between the Stream Buffer Zone (SBZ) and the excess spoil rule and KWA urges OSM to refrain from any new rulemaking and simply enforce the current rules. The "apparent conflict" is between the law and the permitting practices approved by OSM. Aligning the SBZ rule with OSM's historical application of the regulations amounts to overriding congressional intent and SMCRA and would be illegal under the Clean Water Act (CWA). 1-10

KWA believes it is clear that SMCRA must be consistent with the CWA. Therefore, SMCRA cannot not supersede, amend, modify, or repeal any rule or regulation promulgated thereunder. 30 U.S.C. 1292. Both the SBZ rule and excess spoil disposal rule must be consistent the CWA.

The primary goal of the CWA is "to restore and maintain the chemical, physical and biological integrity of the nation's waters". OSM should retain the current rules, not only because they are more protective of the environment, but also because these rules serve to implement SMCRA in a manner reasonably consistent with the Clean Water Act. The proposed rule changes would weaken stream protections that have been in effect for two decades and would be inconsistent with the CWA.

Printed on recycled paper

If there is controversy regarding the enforcement and interpretation of the SBZ and excess soil rule it is because mountain top removal activities and associated valley fills continue to increase in size as the cheapest, easiest way for coal companies to dispose of excess soil that result from mountain top removal is to fill in valleys and the headwater streams in those valleys. OSM and state agencies have failed to enforce the existing rules and this has lead to lawsuits and a (perceived) controversy with the CWA.

Aligning the SBZ rule with OSM's historical application of the regulations amounts to your agency overriding congressional intent and SMCRA and legitimizing the continued destruction of the "waters of the US". OSM should simply require the states to enforce the current rule. **We urge OSM to maintain the current SBZ and excess spoil disposal rule and simply enforce existing regulations.**

SMCRA states its purpose is "to protect society and the environment from the adverse effects of surface coal mining operations." 30 U.S.C. § 1202(a). Environmental standards in SMCRA prescribe that mining operations must "minimize the disturbances to the prevailing hydrologic balance at the mine-site," and "minimize disturbances and adverse impacts of the operation on fish, wildlife, and related environmental values." 30 U.S.C. § 1265(b)(10), (b)(24).

The buffer zone rule applies only to "intermittent" and "perennial" streams, and not to "ephemeral" streams. As those terms are defined by SMCRA regulation, ephemeral streams are streams, or portions of streams, that flow "only in direct response to precipitation in the immediate watershed." An "intermittent" stream is a stream, or stream portion, that "obtains its flow from the surface runoff and groundwater discharge." "Perennial" streams are streams, or stream portions, that flow continuously during the calendar year. 30 C.F.R. 701.5. 1-10

Protection of intermittent and perennial streams is required by SMCRA and by the CWA. Restricting negative stream impacts to ephemeral streams is economically achievable, helps minimize damage to headwaters and downstream navigable waters and is in the public interest. OSM should refrain from rulemaking and enforce the SBZ rule as is legal under both the CWA and SMRCA. This would require the enforcement of the SBZ rule for intermittent and perennial streams and restricting negative impacts to ephemeral streams.

These comments , submitted in response to OSM's Outreach Document are equally applicable to the EIS. The Stream Buffer Zone rule cannot and should not be illegally disregarded and the EIS should be changed to make it clear that the agencies will continue to abide by the federal CWA and will enforce this rule – unless and until such time as Congress enacts legislation to change the CWA and eliminates this vital portion of the law intended to protect our streams from the harmful effects of mining.

Scientific Findings in the EIS

The studies included in the report document the extensive environmental damage caused by mountaintop removal/valley fills in Appalachia between 1985 and 2001. Some of the environmental damage documented in the report include:

- 724 miles of streams across the Central Appalachian region were buried by valley fills between 1985 and 2001;

Printed on recycled paper

- twice that number of stream miles are currently approved for destruction in existing permits;
- an additional 1,200 miles of streams have already been impacted by valley fills;
- selenium was found only in those coalfield streams below valley fills (selenium is a metalloid that, according to the EPA, "can be highly toxic to aquatic life even at relatively low concentrations");
- amphibians and other aquatic life forms including fish in impacted areas and downstream of valley fills are being harmed or killed, changing the entire native species balance in Appalachia;
- interior forest songbirds, native to the area decline significantly in mined and even reclaimed mining areas;
- Streams in impacted watersheds have higher base flows and are subjected to higher runoff rates during larger rainfall events. Both of these facts contribute to the increased frequency and severity of flooding in Appalachia and the loss of life and property in our communities in recent years due to flash flooding.
- without additional restrictions, a total of 2,200 square miles of Appalachian forests (6.8 percent) would be eliminated by 2012 by large-scale mining operations;
- without additional environmental restrictions, mountaintop removal mining will destroy an additional 600 square miles of land and 1000 miles of streams in the next decade.

Clear and Common Regulatory Definitions
Under the guise of clear and common regulatory definitions the report again proposes a rule change first proposed a year and a half ago which changed the definition of "fill" in order to allow the Corps of Engineers to give permits for valley fills under the Clean Water Act. (Proposed Rule: Federal Register Doc. 99-940 Revisions to the Clean Water Act Regulatory Definitions of "Fill Material" and "Discharge of Fill Material)

We oppose any effort to grant the Army Corps of Engineers the authority to issue permits for this destructive practice. We oppose any attempt to allow waterbodies to be filled by a wide array of wastes, including hard rock mining waste, industrial waste.

While unifying the EPA's and Army Corps' definitions of "fill material" makes sense, and the elimination of the primary purpose test will resolve some ambiguity in the current regulatory scheme, any common regulatory definition must adhere to the Clean Water Act and not permit waters to be turned into waste dumps – the very thing the Act was created to prevent, 30 years ago. 3-5

Science Based Methods for Definition and Delineation of Stream Characteristics and Impacts
The EIS calls for "science based methods for definition and delineation of stream characteristics and impacts." This appears to support another recent rulemaking to change the definition of the "Waters of the US" in order to "define" certain types of streams out of existence for the purposes of regulation.

EPA received over 137,000 comments on the recent rulemaking attempt to redefine the "Waters of the US" the vast majority of the comments from citizens, environmental and conservation groups as well as state agencies were against the redefinition that in Kentucky alone would reduce the number of stream miles regulated and protected under the CWA from over 89,000 to approximately 40,000.

Scientists and regulators know what a stream is. We do not need and will not support a redefinition that will remove Clean Water Act protections of thirty years from 40% or more of this nations' and Kentucky's waterways. 1-13

The recent announcement that the EPA and Corps will not move forward with the re-definition of the "waters of the US" is supported by KWA and most of the other 137,000 comments submitted during the public comment period.

In the report of the invitational symposium held to gather expert testimony on the value of headwater streams included in the study, leading fish experts who have many years of studying the headwater streams in Appalachia declared that there was no stream too small to be of importance to native fish and other aquatic species. And the report concludes with the statement that "THE SENTIMENT OF PROBABLY MOST OF THE PEOPLE IN THIS ROOM IS THAT THIS VALLEY FILLING IS A BAD IDEA, AND THAT THE WEIGHT OF THE SCIENTIFIC EVIDENCE -- THE IMPACT YOU COULD DOCUMENT, ALTHOUGH IT MIGHT BE A LOT OF PROBLEM TO DO IT -- WOULD MAKE A STRONG CASE AGAINST DOING IT AT ALL."

The report states that: "The geographic focus of this study involves approximately 12 million acres, encompassing most of eastern Kentucky, southern West Virginia, western Virginia, and scattered areas of eastern Tennessee. The study area contains about 59,000 miles of streams. Some of the streams flow all year, some flow part of the year, and some flow only briefly after a rainstorm or snow melt. Most of the streams discussed in this EIS are considered headwater streams. Headwater streams are generally important ecologically because they contain not only diverse invertebrate assemblages, but some unique aquatic species. Headwater streams also provide organic energy that is critical to fish and other aquatic species throughout an entire river. Ecologically, the study area is valuable because of its rich plant life and because it is a suitable habitat for diverse populations of migratory songbirds, mammals, and amphibians." There is no doubt in the professional opinion of any of these experts that even the smallest streams are indeed streams and are indeed important to the ecology and bio-diversity of the region.

Irreversible and Irretrievable Commitment of Resources (Chapter IV: Environmental Consequences)
This chapter makes it clear that the loss of over 700 miles of streams in this region between 1985 and 2001 and the currently permitted loss of twice that number of stream miles is permanent. The irreversible and irretrievable loss of these entire aquatic ecosystems must be considered. Similarly the loss of valuable topsoil the removal of trees and destruction of entire forest ecosystems must be considered in a mountaintop removal operation.

Water Quality Impacts of Mountain Mining/Valley Fills (MTM/VF)
The EPA Water Chemistry Report found elevated concentrations of sulfate, total and dissolved solids, conductivity, selenium and several other analytes in stream water at sampling stations below mined/filled sites [Appendix D; USEPA, 2002b]. Other studies found elevated concentrations of sulfates, total and dissolved solids, conductivity, as well as other analytes in surface water downstream from MTM/VF sites.

Printed on recycled paper

Studies conducted as a part of this EIS show that aquatic communities downstream from MTM/VF differ from unmined headwater streams in several ways. In most cases, there were differences in biological assemblages. Generally, macroinvertebrate communities below mined areas were more pollution tolerant than those below unmined watersheds.

The two preceding paragraphs were taken verbatim from Chapter IV of the report. The studies show water quality is degraded from MTM/VF operations and under the Clean Water Act each permit must undergo an antidegradation review. Not only has this never been required in Kentucky, but general permits that cover most coal discharges do not even require mining operations to test for selenium and the other analytes commonly found at these sites according to EPA's own studies. 1-13

Summary and Conclusion

KWA rejects all three alternatives as unprotective of the environment. Furthermore even the "status quo" (Alternative #1) option presented is misleading in that it contains a significant change in Clean Water Act protections for streams. If the regulatory agencies we trust to enforce existing environmental laws wish to change those laws they must do so in the clear light of day and with the full backing and understanding of the American public and Congress. 1-5

We strongly urge US EPA, US Army Corps of Engineers, US Fish & Wildlife Service and the West Virginia DEP to go back and read the report and the 30 studies conducted to gather data and issue a new DEIS that is consistent with the vast majority of scientific evidence presented. Such a DEIS will we believe support the enforcement of existing laws and be protective of the environment and the citizens in Appalachia.

If the EPA is unwilling or unable to issue a new DEIS that fairly reflects the vast majority of the scientific evidence presented in these reports, then we urge the removal of the SBZ provisions and the return to the status quo (Alternative #1 –modified to remove the new provisions to the SBZ). 1-8

I am as always willing to answer any questions you may have and discuss our concerns in more detail.

Sincerely,

Judith D. Petersen

Judith D. Petersen
Executive Director

Printed on recycled paper

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:40 PM -----

Bill Price
<bill.price@sierraclub.org>
01/06/2004 03:03 PM

To: John Forren/R3/USEPA/US@EPA
cc: R3 Mountaintop@EPA
Subject: Comments on EIS from Sierra Club-Appalachian Region

January 5th, 2004

Mr. John Forren
Environmental Protection Agency
1650 Arch St.
Philadelphia, PA 19103

Please consider the following comments on behalf of the Sierra Club regarding the Draft Environment Impact Study (DEIS) released by the Environmental Protection Agency (EPA) on May 29th, 2003.

We are opposed to any changes that would weaken the laws and regulations that protect the heritage, environment, and communities of Central Appalachia from the effects of mountaintop mining and valley fills. 1-10

We believe that the data presented in the DEIS confirm that the environmental harm caused by mountaintop removal and valley fill operations
is significant and likely to be irreversible. For example, the data show:

* Approximately 1200 miles of headwater streams "were directly impacted"

by
mountaintop removal and valley fills between 1992 and 2002. From 1985 to
2001, valley fills covered an estimated 724 stream miles.

* No scientific basis could be established for arriving at an environmentally "acceptable" amount of stream loss and it is "difficult if
not impossible to reconstruct free flowing streams on or adjacent to mined
sites."

* Stream chemistry monitoring efforts show significant increases in conductivity, hardness, sulfate, and selenium concentrations downstream of
mountaintop removal operations. Selenium is highly toxic to aquatic life at
relatively low concentrations.

* There is "no evidence that native hardwood forests . . . will eventually
recolonize large mountaintop mine sites using current reclamation methods."

* Large-scale surface coal mining "will result in the conversion of large
portions of one of the most heavily forested areas of the country, also considered one of the most biologically diverse, to grassland habitat."

The Sierra Club is opposed to each of the alternatives evaluated in the DEIS.

* Alternative # 1 - STATUS QUO
Under this alternative, the Army Corps of Engineers is responsible for reviewing and granting or denying permits for new valley fills in streams.
Under this option, the report recommends that the Office of Surface Mining
do away with the stream buffer zone rule that prohibits mining activity

1-5

within 100 feet of streams. We are adamantly opposed to the elimination of
the stream buffer rule.

* Alternative # 2 - THE ADMINISTRATION'S PREFERRED OPTION
This alternative would create one permit application that coal companies would submit to the Army Corps of Engineers and the Office of Surface Mining
(OSM). The two agencies would have a joint role in determining the size and
location of valley fills. This alternative would clearly increase the amount
of damage caused by this irresponsible mining practice. It would "clarify"
the stream buffer zone rule by saying that it does not apply to valley fills. We are opposed to an interpretation of the stream buffer rule that
would remove valley fills from the rule.

* Alternative # 3 - GIVES THE LEAD ROLE TO THE OSM
This alternative would give the lead role in permitting valley fills to the
Office of Surface Mining. The Army Corps of Engineers would step in only if
they determined, after the surface mining agencies had granted a permit, that a more detailed assessment of the proposed valley fill was needed. It
also would do away with the buffer zone rule. Again, we are adamantly opposed to the elimination of the stream buffer rule.

1-5

It is significant that the DEIS does not even consider an alternative involving new limits on valley fills. A preliminary draft, issued in January 2001, analyzed alternatives that would significantly limit the size
of mountaintop removal valley fills. The Preliminary Draft evaluated four
options, including "no action" (essentially relying on existing law pre-1998
to regulate mountaintop removal), a 0 to 75 acre limit (which would allow

fills primarily in ephemeral streams) and a 75 to 250 acre limit (which would allow fills in intermittent streams). The fourth alternative examined a scenario with no acre cap but with other regulatory changes to reduce the effects of valley fills on the environment and communities. Without additional restrictions, a total of 2,200 square miles of Appalachian forests (6.8 percent) will be eliminated by 2012 by large-scale mining operations. Without additional environmental restrictions, mountaintop removal mining will destroy an additional 600 square miles of land and 1000 miles of streams in the next decade. The citizens of the region deserve a full evaluation of ways to reduce the unacceptable impacts of mountaintop removal mining.

Coalfield citizens and environmental supporters originally requested the EIS report in order to identify ways to better protect our land, water and people. Indeed, the studies contained within this 5,000-page document show that the damage caused by mountaintop removal mining is more widespread and severe than previously known. However the DEIS ignores the evidence and instead focuses on issues of "government efficiency" and the need to "provide a basis for more predictable business and mine planning decisions." It ignores the real problems facing the region. It ignores the science and evidence about what mountaintop removal mining is doing to the Appalachian Region. It ignores the public's desire for clean water, healthy environment and safe communities. It is a blueprint for the continued devastation of our homes and environment. The Sierra Club would only be able to support an alternative that minimizes the severe impacts of mountain top removal mining. For these reasons, we oppose all three recommendations of the Draft Environmental Impact Study. We urge the EPA to reevaluate a full range of options that will minimize the enormous environmental and economic damage caused by mountaintop removal mining and valley fills and issue a Supplemental EIS. 1-5

1-5

Bill Price
Sierra Club
Appalachian Region

A Lasting World (ALW)
P.O. Box 1824
Crystal Lake, Illinois 60039-1824
January 2, 2004

REC'D JAN 0 9 2004

Mr. John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

We are the Cofounders of a grassroots environmental organization with over 160 members worldwide. Since our inception two years ago, much of our hands-on environmental work has been done in the forests and in the mountains of the state of Kentucky. We have also sponsored several Earth Day events/celebrations in that state. We are grateful to the Kentuckians for the Commonwealth (KFTC) for their consistent support, for their knowledge and expertise, and for their shared vision to help keep Kentucky and the Earth healthy and beautiful for all of us.

We have spent a considerable amount of time studying and reviewing the Environmental Impact Statement (EIS) on mountaintop removal and valley fills. We have discussed the issue of mountaintop removal with noted environmentalists, with mountain residents whose homeland is being destroyed or threatened, and with members of the KFTC steering committee. We have also listened to shallow arguments from coal company representatives who would like to have us believe that what we have seen with our own eyes is not really the truth.

It is time for us to make known our position on mountaintop removal and valley fills.

Mr. Forren, we, the members of ALW, are strongly opposed to mountaintop removal mining and valley fills. 1-9

We are opposed to any changes that would weaken the laws and regulations that protect clean water. In particular, we oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. 1-10

We do not support Alternatives 1, 2 and 3 within the EIS report. As we understand them, Alternative 1 would mean no change in the current permitting system, Alternative 2 would have one permit application go to the Army Corps of Engineers and the Office of Surface Mining, which would have a joint role in determining the size and location of valley fills, and Alternative 3 would give the lead role in permitting valley fills to the Office of Surface Mining. None of these options will protect our water or our communities. 1-5

The EIS report documents extensive environmental damage caused by mountaintop removal and valley fills between 1985 and 2001, and yet the current Bush Administration ignores these findings and continues to ignore the public's demand for clean water, for a healthy environment and for safe communities.

We submit our comments to you for consideration and review. We hope our letter will help make a difference in ending mountaintop removal mining and valley fills before the Appalachians and the people who live there no longer exist.

Respectfully submitted,
Andi, Linda & Wen
Andi Putman, Linda Bartlett, Wen Marcec
Cofounders
A Lasting World (ALW)

cc: Kentuckians for the Commonwealth (KFTC)

Friday, January 02, 2004 America Online: ALastingWorld

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:40 PM -----

ALastingWorld@aol.com 01/02/2004 10:23 PM
To: R3 Mountaintop@EPA
cc:
Subject: Attention: John Forren

A Lasting World (ALW)
P.O. Box 1824
Crystal Lake, Illinois 60039-1824
January 2, 2004

Mr. John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

We are the Cofounders of a grassroots environmental organization with over 160 members worldwide. Since our inception two years ago, much of our hands-on environmental work has been done in the forests and in the mountains of the state of Kentucky. We have also sponsored several Earth Day events/celebrations in that state. We are grateful to the Kentuckians for the Commonwealth (KFTC) for their consistent support, for their knowledge and expertise, and for their shared vision to help keep Kentucky and the Earth healthy and beautiful for all of us.

We have spent a considerable amount of time studying and reviewing the Environmental Impact Statement (EIS) on mountaintop removal and valley fills. We have discussed the issue of mountaintop removal with noted environmentalists, with mountain residents whose homeland is being destroyed or threatened, and with members of the KFTC steering committee. We have also listened to shallow arguments from coal company

representatives who would like to have us believe that what we have seen with our own eyes is not really the truth.

It is time for us to make known our position on mountaintop removal and valley fills.

Mr. Forren, we, the members of ALW, are strongly opposed to mountaintop removal mining and valley fills. 1-9

We are opposed to any changes that would weaken the laws and regulations that protect clean water. In particular, we oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. 1-10

We do not support Alternatives 1, 2 and 3 within the EIS report. As we understand them, Alternative 1 would mean no change in the current permitting system, Alternative 2 would have one permit application go to the Army Corps of Engineers and the Office of Surface Mining, which would have a joint role in determining the size and location of valley fills, and Alternative 3 would give the lead role in permitting valley fills to the Office of Surface Mining. None of these options will protect our water or our communities. 1-5

The EIS report documents extensive environmental damage caused by mountaintop removal and valley fills between 1985 and 2001, and yet the current Bush Administration ignores these findings and continues to ignore the public's demand for clean water, for a healthy environment and for safe communities.

We submit our comments to you for consideration and review. We hope our letter will help make a difference in ending mountaintop removal mining and valley fills before the Appalachians and the people who live there no longer exist.

Respectfully submitted,

Andi Putman, Linda Bartlett, Wen Marcec
Cofounders
A Lasting World (ALW)

cc: Kentuckians for the Commonwealth (KFTC)

west
virginia
highlands
conservancy

MAILING ADDRESS • P. O. Box 306 • Charleston, West Virginia 25321

Publishers of The Highlands Voice and the Monongahela National Forest Hiking Guide

REC'D AUG 0 4 2003

August 4, 2003

FROM: Cindy Rank
HC 78, Box 227
Rock Cave, WV 26234
Phone & fax: (304) 924-5802

TO: John Forren
US EPA, Region III
FAX: (215) 814-2783

John Forren:

Please consider this a formal request for an extension of the comment period relating to the DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT on Mountaintop Removal Mining/Valley Fills in Appalachia.

I verbally made this request on behalf of my local community group FOLK (Friends of the Little Kanawha) at the public hearing in Charleston, WV on July 24, 2003.

Today I would like to request a 90 day extension on behalf of the Mining Committee of the West Virginia Highlands Conservancy (a committee that I chair). Digesting the entire EIS document has proven to be an even more daunting task than I had originally hoped it would be. 3-5

Thank you for whatever consideration you can afford this request. Please notify me by mail, telephone or fax at my home address and/or phone numbers listed above.

Respectfully,
Cindy Rank
Cindy Rank

Working since 1967 for the conservation and wise management of West Virginia's natural resources

Enterprise
MINING COMPANY, LLC

EIS PUBLIC HEARING STATEMENT

July 22, 2003
Hazard, Kentucky

I would like to thank this Committee for the opportunity to submit written comments concerning the Draft Programmatic Environmental Impact Statement. ENTERPRISE MINING COMPANY, LLC represents over 1.5 million tons of coal mined in Eastern Kentucky. .

With regard to the proposed EIS, any changes to existing rules need to be considerate of potential ramifications that hinder the mining industry's ability to continue to provide the economical energy demanded by the American public. Enterprise has demonstrated itself as capable to mine coal responsibly while providing lands suitable for a diverse range of activities. Level lands suitable for facilities such as hospitals, schools, shopping centers as well as farm and timber production have been developed through mining in Kentucky. ENTERPRISE MINING COMPANY, LLC is concerned that any new rules or regulations that may develop from this EIS will drastically inhibit future development of level lands in Eastern Kentucky through mining. 10-3-5

For decades professional planners have declared the number one problem that hinders economical development in the Central Appalachians to be the lack of level developable land. The mining industry has helped in the past and can help in the future to create level usable land ready for human development within our region. It is our fear that any regulation that goes too far in curbing these currently accepted practices of the past 20 + years will be detrimental to the region in both the short and long run. In Kentucky we have built miles of water lines into areas that everyone said, why build there? No one will ever build anything there! They were wrong. Homes and businesses have sprung up all along those miles of then lonely water lines, just as development will occur on these man made level areas created as a result of mining. Don't deprive us of future development by eliminating the incentive to develop these lands. 10-3-5

Coal Mining is already one of the most heavily regulated industries in America. The regulation of mining does not need to be made more cumbersome by multiple federal agency bureaucratic regulations. The more overlapping and the more attempts by federal agencies to entrench themselves in job security by seizing dominance over the Office of Surface Mining and the various state mine regulatory agencies responsibilities is a travesty upon the American citizens who demand energy at an economically reasonable price and the working people who meet this demand. It further dismisses all the empirical environmental progress made by our efforts to protect the environment and create usable land in the last 20 years. In short, a knee jerk regulatory reaction to the EIS could be one huge step backwards. 1-12

Thank you for allowing our comments to be submitted. ENTERPRISE MINING COMPANY, LLC and its miners are proud to be part of this process and to be providing economical energy to millions of Americans.

Respectively,

Donald L. Ratliff
Vice President of External Affairs

Enterprise Mining Company, LLC
117 Madison Avenue Suite 2
Whitesburg, Kentucky 41858

Via e-mail to: mountaintop.r3@epa.gov (3 pages)

2616 Mountain Brook Pkwy.
Birmingham, Alabama 35223
January 5, 2004

Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, Pennsylvania

Gentlemen:

We write to supplement the comments on the Draft EIS for Mountaintop Mining/Valley Fill submitted by some 20 conservation agencies under date of December 30, 2003 ("the main comment letter"). We strongly urge -- and submit that it would be in the national interest -- that the present "preferred alternative" be withdrawn and reissued for public comment and (i) that an alternative containing environmental constraints like those advocated in the main comment letter be adopted and (ii) that filling all but the smallest ditches and ones with no free-flowing streams be strictly prohibited. We urge that any other alternative would be arbitrary and capricious and in violation of law, a position that the Administration should strongly avoid. We urge particularly: 1-13

(1) Great Biodiversity of Mountaintop and Ridgeline Forests -- The great biodiversity of the forests of the Southern Appalachians and Cumberland Plateau has been stressed in the main comment letter. These include sensitive bird species documented by the scientists working for Partners-in-Flight, the consortium of government agencies like the Fish & Wildlife Service and U.S. Forest Service and nongovernmental organizations, as well as salamanders, frogs and other amphibians (which are important enough even "to make" a recent issue of U.S. postage stamps). The birds include neotropical migrants such as the Wood Thrush, Kentucky Warbler, Ovenbird, Acadian Flycatcher and others, many of which have lost 50% of their population over the last 30 years. Further, this area is the world center for salamanders, very sensitive species of which there are more species here than anyplace else in the world!

One of the neotropical migrants is the Cerulean Warble, one of the most beautiful little birds on the planet. The adverse impacts on it of this mountaintop mining is documented by the studies reported in the main comment letter. But, please just note that this mining will adversely impact 380,000 acres of its mountain/ridge habitat. Scientific estimates are that, over ten years, there will be a loss of over 135,000 birds, which could well be more than this species can absorb.. Consequently, it is essential that environmental constraints be included in the alternative that is adopted. 5-6-2

(2) Great Biodiversity of Riverine Forests -- These are one of the most productive, yet declining, habitats on earth. This is true for birds, mammals, fish and amphibians as well as trees and other plantlife. In fact, these are part of what was known, when the country was settled, as the Great Eastern Deciduous Forest. It should be unthinkable to destroy the riverine part of them by just dumping mining overburden on them! We asked at a meeting if the mining companies could not truck out the overburden spoil somewhere else and were advised that they opined, "That would be too expensive." If it is too expensive to avoid destroying riverine forests, then it should obviously be too expensive to carry out the project!

(3) Lack of Cost-Effectiveness -- Destroying riverine forests is not cost-effective for many reasons. Among them, assimilation of wastes, recharge of groundwater, protection of biodiversity and protection of all types of natural resources (see above). It would cost government entities (and private organizations) much more to restore these resources -- and over a substantial time -- than could be gained from destroying them. Consequently, if the mining overburden spoil cannot be taken elsewhere, the mining project should not be carried out. 11-9-2

Reference has been made above and in the main comment letter to the adverse impacts on sensitive species. The Cerulean Warbler, for example, is under consideration for listing under the Endangered Species Act. It takes government (as well as private entities) much expense and much time to attempt to recover a species once its numbers have declined so that it is threatened or endangered. Consequently, it is not cost-effective to conduct any activities that would place them in that condition.

Consideration should also be given to destruction of scenic vistas and lost natural recreational activities from mountaintop mining and destroyed water resources. These represent lost recreational resources and tourist revenues that are costs that should also be taken into consideration. 11-7-2

(4) Violation of Administrative Procedures Act ("APA")-- Federal agencies are constrained by the APA (5 USC 701 et seq.) not to adopt any actions that are (i) arbitrary, (ii) capricious, (iii) an abuse of discretion, or (iv) otherwise not in accordance with law, in this case, the National Environmental Policy Act ("NEPA"). The agency cannot, under law, merely disregard environmental factors. That would be a violation of NEPA and APA. Applied to this case, an action not giving adequate consideration to the factors referred to in (1) through (3) above and in the main comment letter, particularly since they have been documented by scientific studies or are facts of general knowledge, would be unlawful.

APA applies to all forms of government action, environmental as well as otherwise. Motor Vehicle Mfgrs. Asso. v. State Farm Mutual Auto Ins. Co., 463 U.S. 29 at 43, 77 L.Ed.2d 442 at 458 (U.S. Supreme Court, 1983) (holding recision of regulation requiring passive restraints in automobiles was arbitrary and capricious); Audubon Society of Central Arkansas v. Dailey, 977 F.2d 428 (8th Cir. 1982) (arbitrary and capricious choosing of alternatives by Corps of Engineers); Coalition for Canyon Preservation v. Bowers, 632 F.2d 774 at 784 (9th Cir. 1980) (per Mr. Justice Kennedy, then writing for the Ninth Circuit, holding a highway EIS defective for not evaluating an improved two-lane road); and ILGU v. Donovan, 722 F.2d 795 (D.C. Cir. 1983) (holding action of Secy. of Labor, in eliminating restrictions on counting homework in setting wage rates, was arbitrary and capricious). 4-2

In State Farm, the Supreme Court stated, "The agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made. . . .and whether there was a clear error of judgment." In Donovan,

referring to the CEQ Regs. 40 CFR 1502, that it is arbitrary for an agency to limit its consideration of alternatives, the court held that artificially narrowing his alternative options was "antithetical to reasoned decisionmaking and cannot be upheld, citing State Farm." Then, in the Arkansas case, it was held that, while the agency must take a "hard look" at the facts, it must take action on what that "hard look" showed and not "ignore what it saw." It is instructive that in Canyon Preservation, the Court, through now Mr. Justice Kennedy writing for the Ninth Circuit, held in a highway case that a two-lane road must be evaluated. That would translate to a different type of mountaintop mining as applied here, i.e. one with environmental constraints.

4-2

It appears that here the lead agency is being directed to limit its consideration of alternatives and would not be taking an action based on the known and established facts, i.e. would be ignoring what the required "hard look" shows. That is a violation of APA as well as NEPA and it would appear should also be a violation on the part of the officials directing that violation. We do not believe that is an action the Administration would intend be taken, especially at times like these. And, further, in times like these with the present budgetary deficits, it would appear the government should avoid all actions that are not cost-effective. For that reason, these comments are being sent to the OMB.

For the above reasons, these comments are submitted in behalf of the Alabama Audubon Council, Alabama Environmental Council and Alabama Ornithological Society, which have an aggregate of over 10,000 members in Alabama and surrounding states. Each of those organizations is strongly concerned over protection of all of our natural resources, and, for the same reasons, these comments are concurred in by the undersigned as an interested citizen and taxpayer. Your consideration will be greatly appreciated.

Sincerely yours,

/s/ Robert R. Reid, Jr.

Robert R. Reid, Jr., for himself and
the above three organizations

cc: Director, Office of Management and Budget
Commenting organizations

3

John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103
mountaintop.r3@epa.gov

REC'D JAN 0 9 2004

January 5, 2004

Subject: Draft Programmatic Environmental Impact Statement on Mountain Top Mining/Valley Fill (MTM/VF) in the Appalachian region of the eastern United States.

Dear Mr. Forren,

We write on behalf of the undersigned groups, representing thousands of citizens across Tennessee and Kentucky who are concerned about the harmful impacts that mountaintop mining/valley fill has on aquatic and terrestrial wildlife habitat. We feel that the alternatives presented in the Draft Programmatic Environmental Impact Statement are inadequate to address these impacts and that pertinent information was not considered in the formulation of this document. It is our opinion that these inadequacies are sufficient to require a new draft EIS and that a moratorium on new mountaintop mining permits be imposed until a final EIS is adopted with an environmentally acceptable alternative. 1-5

The DEIS Fails to address MTM/VF impacts on High Priority Forest Bird Species. Figures from the draft EIS project that an additional 380,000 acres of forest will be lost from the study area in the next 10 years. This number is based on the numbers of acres of forest that were lost between 1992 and 2002 from permitted mountaintop mining activities. We feel that this will cause an unacceptable loss of habitat required by the entire suite of mature forest birds of high conservation concern. The Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher are all at or nearly at their maximum breeding density within the study area (USGS 2003). They are all listed as priority species by Partners in Flight and all are also classified as Birds of Conservation Concern by the U. S. Fish and Wildlife Service (USFWS 2002) within the Appalachian Bird Conservation Region, which overlaps the area considered in the draft EIS. We consider this level of habitat loss, in one of the most heavily forested areas in the country to be unacceptable, and especially so for the Cerulean Warbler, the forest species of highest concern in this area. Figures presented in the draft Northeast Partners-in-Flight letter (NEPIF 2003, attached with permission) indicate that habitat for roughly 9% of the world's ceruleans was lost to permitted mining activities between 1992 and 2002 and another 9% is projected to be lost between 2003 and 2012. We find this level of habitat loss for Cerulean Warblers and other terrestrial bird species to be unacceptable and we are disappointed that the draft EIS does not address this extremely important and significant environmental impact. 7-3-2 8-2-5

1

The DEIS omitted available data showing large potential Cerulean Warbler losses from mining impacts.
The Cerulean Warbler is the bird species we are most concerned with because it has suffered drastic population declines over the last several decades and more than any bird species in the study area, their nesting habitat will be the impacted by mountaintop mining/ valley fill activities. Not only do Cerulean Warblers prefer to nest on ridgetops, on mesic slopes and in cove forests at the head of valley streams (Rosenberg et al. 2000) but the core of its breeding range coincides very closely with the EIS study area (USGS 2003, Rosenberg et al. 2000). This species has been petitioned for listing under the Endangered Species Act and is also on the USFWS' National List of Birds of Conservation Concern (USFWS 2002).

Recent research indicated that the average density of Cerulean Warblers territories in intact forest near mined areas in West Virginia was 0.46 pairs/hectare (ha) (Weakland and Wood 2002). If this density estimate is accurate for the entire study area, then habitat for over 100,000 Cerulean Warblers was lost in the last 10 years and that number is projected to be lost in the next 10. In addition, this estimate does not include population loss from the reduced breeding densities in forest fragmented by mining and in forest adjacent to mined sites that Drs. Weakland and Wood found. This further increases the impact on the breeding population. We feel that this represents an unacceptable loss to a species whose population is roughly half or less than it was in the 1960s. We also feel that the omission of Drs. Weakland and Wood's Cerulean Warbler research from this draft EIS, when we know that it was made available to those involved in its development, to be sufficient to trigger a revision of the document. 8-2-5

The DEIS fails to address Executive Order 13186
Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, January 10, 2001, is specifically applicable in Tennessee because the agency issuing mining permits is the Office of Surface Mining. This Executive Order instructs federal agencies to integrate bird conservation principles and practices into agency activities and to avoid or minimize adverse impacts on migratory bird resources when conducting agency actions. Federal agencies are to "identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service. The agency also shall inventory and monitor bird habitat and populations within the agency's capabilities and authorities to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts." 8-2-1

The bird species most directly impacted by mountaintop mining: Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher, are all listed as Birds of Conservation Concern by the U. S. Fish and Wildlife Service (USFWS 2002) within the Appalachian Bird Conservation Region. These are specifically the species that this Executive Order was issued to protect. The list of Birds of Conservation Concern was mandated by Congress under 1988 amendments to the Fish and Wildlife Conservation Act and denotes species that without additional conservation actions are likely to become candidates for listing under the Endangered Species Act. We consider the draft EIS to be incomplete without addressing Executive Order 13186 and the impacts of mountaintop mining activities in Tennessee, and possibly throughout the study area, on these bird species. 8-2-1

The DEIS fails to identify effective mitigation measures to reduce impacts on terrestrial communities.
While the draft EIS reports on studies that have shown that a post mining change of habitat can provide habitat for declining grassland species, we find it inappropriate to consider replacing forest habitat with grassland habitat. "Rare" eastern grassland species are rare because their habitat is historically rare in this region. Recovery and habitat restoration efforts for these species should be targeted towards ecosystems and landscapes where they occurred historically, not on eastern mountaintops that currently support high quality forest habitats.

The only mitigation offered in the draft EIS for the destruction of large areas of hardwood forest habitat by mining operations is a suggestion that the mine sites could be reforested after operations cease. While recent research indicates that some forest species may be reestablished on reclaimed mine sites (Holl et al. 2001), we agree with statements in the draft EIS that these investigations have only recently begun and "that it would be premature to attempt to evaluate the success of these efforts at this time". Furthermore, the draft EIS concedes that "as post-mined sites will likely lack the requirements of slope, aspect and soil moisture needed for cove-hardwood forest communities, it is unlikely that these particular communities can be re-established through reclamation". Surface mining completely removes the topsoil, seed source and root stock of the forest communities on the site and the re-contoured post mining fill material will be substantially different hydrologically than the original ridge or mountain top. Convincing evidence that a hardwood forest, essentially the same as the one removed during mining, can be reestablished in a reasonable amount of time, needs to be presented before this method can be offered as mitigation for the loss of hundreds of thousands of acres of biologically diverse hardwood forest habitat. 7-3-3

DEIS projections may underestimated forest loss
The draft EIS does not take into consideration the anticipated increase in future demand for Appalachian coal in the study area due to the planned construction of flue gas desulfurization units (scrubbers) at some of the existing coal-fired generating plants owned by the Tennessee Valley Authority (TVA 2002) and other electric utilities in the region. This increase in mining activity has already begun in Tennessee. The draft EIS projects that Tennessee will issue permits causing the loss of 9,154 acres of forest between 2003 and 2012 based on permits issued between 1992 and 2002. However, between December 2002 and October 2003, over 5,000 acres of surface mining permits have already been approved (Siddell 2003). This potential underestimate of future mining impacts is substantial and needs to be investigated and incorporated in the analysis of cumulative impacts in a revised draft EIS. 7-5-2

DEIS fails to provide adequate alternatives to avoid environmental impacts
We feel that the three alternative presented in the draft EIS are inadequate to reduce the impacts of mountaintop mining. The U.S. Fish and Wildlife Service apparently supports this view. In an interagency memo (USFWS 9/20/02), the FWS warns that publication of the draft EIS as written, "will further damage the credibility of the agencies involved." It states that the proposed actions offer "only meager environmental benefits" and criticizes the draft EIS for not considering "at least one alternative to restrict, or otherwise constrain, most valley fills to ephemeral stream reaches...As we have stated repeatedly, it is the service's position that the three 'action' alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection ... let alone protection that can be quantified or even estimated in advance. . .The reader is left wondering what genuine actions, if any, the agencies are actually proposing." We find that the draft EIS offers alternatives that would only streamline the permitting process for approval of new mountaintop-removal permits and thereby fails to comply with both the letter and the intent of the NEPA EIS process. 1-5

A moratorium should be placed on new mining permits until the DEIS is revised and reissued for public comment.
We propose that a moratorium be placed on new mountaintop mining permits until a new draft EIS is written that will: 4-2

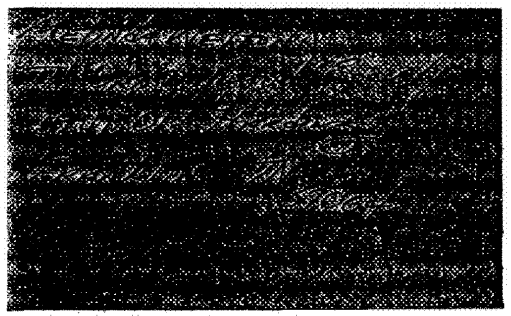
1) Include all relevant research and provide for the avoidance of key Cerulean Warbler habitat and provide significant environmental protection for other PIF priority species and FWS Birds of Conservation Concern,
2) Address the requirements of EO 13186,
3) Review and revise forest loss estimates and the analysis of cumulative impacts,
4) Provide environmentally sound alternatives that will reduce the impacts of mountaintop mining on aquatic and terrestrial communities.

This moratorium should continue until a final EIS is adopted with an environmentally acceptable alternative.

We appreciate the opportunity to comment on this Draft Environmental Impact Statement. This letter is being submitted via email. A paper version will follow.

Respectfully submitted,

Virginia Reynolds
President
Tennessee Ornithological Society
4241 Waymar Drive
Memphis, TN 38117
(901) 767-3547



Randall Ellis, MD
President
Warioto Chapter of National Audubon Society
2575 Carrigan Road
Clarksville, TN 37043
(931) 362-3068

Hap Chambers
President
Kentucky Ornithological Society
33 Wildwood Drive
Murray, KY 42071
(207) 293-5828

Betsy Bennett
Conservation Chair
Cumberland Chapter - Sierra Club
580 Garder Drive
Louisville, KY 40206
(502) 897-0040

Gary Bower
Conservation Chair
TN Chapter - Sierra Club
3317 Timber Trail
Antioch, TN 37013
615-366-4738

References:

Executive Order 13186. January 10, 2001. Responsibilities of Federal Agencies to Protect Migratory Birds. (Attached)

Holl, K. D., C. E. Zipper and J. A. Burger. 2001. Recovery of native plant communities after mining. Virginia Cooperative Extension Publ. 460-140. [Online version available at http://www.ext.vt.edu/pubs/mines/460-140/460-140.html. A copy of this paper was sent to Mr. Forren, January 2004, with the comments prepared by the American Bird Conservancy Policy Council.]

Northeast Working Group of Partners in Flight, Steering Committee. April 2003. Draft Comments for the EIS on Mountaintop Removal Mining/Valley Fills draft EIS. (Attached)

5

Rosenberg, K. V., S. E. Barker, and R. W. Rohrbaugh. 2000. An atlas of Cerulean Warbler populations: Final report to the U.S. Fish and Wildlife Service. December 2000. [Online version available at http://birds.cornell.edu/cewap/cwapresults.htm. A copy of this report was sent to Mr. Forren, January 2004, with the comments prepared by the American Bird Conservancy Policy Council.]

Siddell D. 2003. Recent Tennessee Permits. Supervisor, Technical Group, Office of Surface Mining, Knoxville, TN email communication 11/04/03 [A copy of this memo was sent to Mr. Forren, January 2004, with the comments prepared by the American Bird Conservancy Policy Council.]

Tennessee Valley Authority. 2002. Braden Mountain surface mine; Campbell and Scott Counties, Tennessee. Tennessee Valley Authority, Knoxville. [A copy of this paper was sent to Mr. Forren, January 2004, with the comments prepared by the American Bird Conservancy Policy Council.]

U.S. Fish Wildlife Service. 2002. Birds of conservation concern 2002. Division of Migratory Bird Management, Arlington, Virginia. 99pp. [Online version available at <http://migratorybirds.fws.gov/reports/bcc2002.pdf>. A copy of this paper was sent to Mr. Forren, January 2004, with the comments prepared by the American Bird Conservancy Policy Council.]

U.S. Fish Wildlife Service. 9/20/02. Comments on Draft MTM/VF EIS of Chapter IV (Alternatives). [A copy of this memo was sent to Mr. Forren, January 2004, with the comments prepared by the American Bird Conservancy Policy Council.]

USGS. 2003. The North American Breeding Bird Survey Results and Analysis, 1966 – 2002. <http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>. Relative abundance maps. [See Figure 1 in comments sent to Mr. Forren, January 2004, by the American Bird Conservancy Policy Council]

Weakland, C. A. and P. B. Wood. 2002. Cerulean Warbler (Dendroica cerulea) microhabitat and landscape-level habitat Characteristics in southern West Virginia in relation to mountaintop mining/valley fills. Final Project Report submitted to USGS Biological Resources Division, Species-At-Risk Program. [Available online at http://www.forestry.caf.wvu.edu/pWood/>. A copy of this paper was sent to Mr. Forren, January 2004, with the comments prepared by the American Bird Conservancy Policy Council.]

Executive Order 13186

REC'D JAN 0 9 2004

Presidential Documents

Executive Order 13186 – Responsibilities of Federal Agencies To Protect Migratory Birds

January 10, 2001

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in furtherance of the purposes of the migratory bird conventions, the Migratory Bird Treaty Act (16 U.S.C. 703-711), the Bald and Golden Eagle Protection Acts (16 U.S.C. 668-668d), the Fish and Wildlife Coordination Act (16 U.S.C. 661-666c), the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347), and other pertinent statutes, it is hereby ordered as follows:

Section 1. Policy. Migratory birds are of great ecological and economic value to this country and to other countries. They contribute to biological diversity and bring tremendous enjoyment to millions of Americans who study, watch, feed, or hunt these birds throughout the United States and other countries. The United States has recognized the critical importance of this shared resource by ratifying international, bilateral conventions for the conservation of migratory birds. Such conventions include the Convention for the Protection of Migratory Birds with Great Britain on behalf of Canada 1916, the Convention for the Protection of Migratory Birds and Game Mammals-Mexico 1936, the Convention for the Protection of Birds and Their Environment-Japan 1972, and the Convention for the Conservation of Migratory Birds and Their Environment-Union of Soviet Socialist Republics 1978.

These migratory bird conventions impose substantive obligations on the United States for the conservation of migratory birds and their habitats, and through the Migratory Bird Treaty Act (Act), the United States has implemented these migratory bird conventions with respect to the United States. This Executive Order directs Executive departments and agencies to take certain actions to further implement the Act. Sec. 2. Definitions. For purposes of this Order:

(a) "Take" means take as defined in 50 C.F.R. 10.12, and includes both "intentional" and "unintentional" take.

(b) "Intentional take" means take that is the purpose of the activity in question.

(c) "Unintentional take" means take that results from, but is not the purpose of, the activity in question.

(d) "Migratory bird" means any bird listed in 50 C.F.R. 10.13.

(e) "Migratory bird resources" means migratory birds and the habitats upon which they depend.

(f) "Migratory bird convention" means, collectively, the bilateral conventions (with Great Britain/Canada, Mexico, Japan, and Russia) for the conservation of migratory bird resources.

(g) "Federal agency" means an Executive department or agency, but does not include independent establishments as defined by 5 U.S.C. 104.

(h) "Action" means a program, activity, project, official policy (such as a rule or regulation), or formal plan directly carried out by a Federal agency. Each Federal agency will further define what

the term "action" means with respect to its own authorities and what programs should be included in the agency-specific Memoranda of Understanding required by this Order. Actions delegated to or assumed by nonfederal entities, or carried out by nonfederal entities with Federal assistance, are not subject to this Order. Such actions, however, continue to be subject to the Migratory Bird Treaty Act.

(i) "Species of concern" refers to those species listed in the periodic report "Migratory Nongame Birds of Management Concern in the United States," priority migratory bird species as documented by established plans (such as Bird Conservation Regions in the North American Bird Conservation Initiative or Partners in Flight physiographic areas), and those species listed in 50 C.F.R. 17.11.

Sec. 3. Federal Agency Responsibilities. (a) Each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement, within 2 years, a Memorandum of Understanding (MOU) with the Fish and Wildlife Service (Service) that shall promote the conservation of migratory bird populations.

(b) In coordination with affected Federal agencies, the Service shall develop a schedule for completion of the MOUs within 180 days of the date of this Order. The schedule shall give priority to completing the MOUs with agencies having the most substantive impacts on migratory birds.

(c) Each MOU shall establish protocols for implementation of the MOU and for reporting accomplishments. These protocols may be incorporated into existing actions; however, the MOU shall recognize that the agency may not be able to implement some elements of the MOU until such time as the agency has successfully included them in each agency's formal planning processes (such as revision of agency land management plans, land use compatibility guidelines, integrated resource management plans, and fishery management plans), including public participation and NEPA analysis, as appropriate. This Order and the MOUs to be developed by the agencies are intended to be implemented when new actions or renewal of contracts, permits, delegations, or other third party agreements are initiated as well as during the initiation of new, or revisions to, land management plans.

(d) Each MOU shall include an elevation process to resolve any dispute between the signatory agencies regarding a particular practice or activity.

(e) Pursuant to its MOU, each agency shall, to the extent permitted by law and subject to the availability of appropriations and within Administration budgetary limits, and in harmony with agency missions:

(1) support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;

(2) restore and enhance the habitat of migratory birds, as practicable;

(3) prevent or abate the pollution or detrimental alteration of the Environment for the benefit of migratory birds, as practicable;

(4) design migratory bird habitat and population conservation principles, measures, and practices, into agency plans and planning processes (natural resource, land management, and environmental quality planning, including, but not limited to, forest and rangeland planning, coastal management planning, watershed planning, etc.) as practicable, and coordinate with other agencies and nonfederal partners in planning efforts;

(5) within established authorities and in conjunction with the adoption, amendment, or revision of agency management plans and guidance, ensure that agency plans and actions promote programs and recommendations of comprehensive migratory bird planning efforts such as Partners-in-Flight, U.S. National Shorebird Plan, North American Waterfowl Management Plan, North American Colonial Waterbird Plan, and other planning efforts, as well as guidance from other sources, including the Food and Agricultural Organization's International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries;

(6) ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern;

(7) provide notice to the Service in advance of conducting an action that is intended to take migratory birds, or annually report to the Service on the number of individuals of each species of migratory birds intentionally taken during the conduct of any agency action, including but not limited to banding or marking, scientific collecting, taxidermy, and depredation control;

(8) minimize the intentional take of species of concern by: (i) delineating standards and procedures for such take; and (ii) developing procedures for the review and evaluation of take actions. With respect to intentional take, the MOU shall be consistent with the appropriate sections of 50 C.F.R. parts 10, 21, and 22;

(9) identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service. These principles, standards, and practices shall be regularly evaluated and revised to ensure that they are effective in lessening the detrimental effect of agency actions on migratory bird populations. The agency also shall inventory and monitor bird habitat and populations within the agency's capabilities and authorities to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts;

(10) within the scope of its statutorily-designated authorities, control the import, export, and establishment in the wild of live exotic animals and plants that may be harmful to migratory bird resources;

(11) promote research and information exchange related to the conservation of migratory bird resources, including coordinated inventorying and monitoring and the collection and assessment of information on environmental contaminants and other physical or biological stressors having potential relevance to migratory bird conservation. Where such information is collected in the course of agency actions or supported through Federal financial assistance, reasonable efforts shall be made to share such information with the Service, the Biological Resources Division of the U.S. Geological Survey, and other appropriate repositories of such data (e.g. the Cornell Laboratory of Ornithology);

(12) provide training and information to appropriate employees on methods and means of avoiding or minimizing the take of migratory birds and conserving and restoring migratory bird habitat;

(13) promote migratory bird conservation in international activities and with other countries and international partners, in consultation with the Department of State, as appropriate or relevant to the agency's authorities;

(14) recognize and promote economic and recreational values of birds, as appropriate; and

(15) develop partnerships with non-Federal entities to further bird conservation.

(f) Notwithstanding the requirement to finalize an MOU within 2 years, each agency is encouraged to immediately begin implementing the conservation measures set forth above in subparagraphs (1) through (15) of this section, as appropriate and practicable.

(g) Each agency shall advise the public of the availability of its MOU through a notice published in the Federal Register.

Sec. 4. Council for the Conservation of Migratory Birds. (a) The Secretary of Interior shall establish an interagency Council for the Conservation of Migratory Birds (Council) to oversee the implementation of this Order. The Council's duties shall include the following: (1) sharing the latest resource information to assist in the conservation and management of migratory birds; (2) developing an annual report of accomplishments and recommendations related to this Order; (3) fostering partnerships to further the goals of this Order; and (4) selecting an annual recipient of a Presidential Migratory Bird Federal Stewardship Award for contributions to the protection of migratory birds.

(b) The Council shall include representation, at the bureau director/administrator level, from the Departments of the Interior, State, Commerce, Agriculture, Transportation, Energy, Defense, and the Environmental Protection Agency and from such other agencies as appropriate.

Sec. 5. Application and Judicial Review. (a) This Order and the MOU to be developed by the agencies do not require changes to current contracts, permits, or other third party agreements.

(b) This Order is intended only to improve the internal management of the Executive branch and does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.

William J. Clinton
The White House,
January 10, 2001.

To submit questions and comments about CEQ NEPAnet, please use the NEPAnet Feedback System.

REC'D JAN 0 9 2004

DRAFT
April, 2003

Dear Steering Committee for the EIS on Mountaintop Removal Mining/Valley Fills:

Please accept the following comments for consideration in the EIS being developed for mountaintop removal mining/valley fill activities in West Virginia, Kentucky, Tennessee, and Virginia. These comments on the impacts of mountaintop mining activities on the full suite of priority birds associate with mature deciduous forests, including populations of Cerulean Warblers, are supported by Steering Committee members of the Northeast Working Group of Partners in Flight (PIF). A brief summary statement is presented below, with a more detailed discussion in the attached pages. These comments represent a synthesis of information gained from published literature, bird conservation plans developed by PIF, an extensive Cerulean Warbler Atlas Project conducted from 1997-2000, and discussions with colleagues. Preliminary figures from the EIS on cumulative impacts of this mining activity in the study area suggest a massive and permanent impact within the EIS study area on the entire suite of priority mature forest birds (e.g., Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher) due to the estimated forest loss of approximately 760,000 acres from issued and future permits during the 20-year period of 1992 to 2012. Total cumulative forest loss from all mining activities, including permitted activities prior to 1992, is estimated at 11.5% of the total forest cover in the EIS study area. We consider this level of habitat loss to constitute a significant negative impact for the entire mature forest suite of birds, and especially for the Cerulean Warbler, the forest species of highest concern in this area. The cumulative impacts from issued and proposed future mountaintop mine/valley fill permits during this period appear likely to eliminate breeding habitat for 10%-20% (our estimate is 17%) of the global population of Cerulean Warblers. This level of habitat loss is unacceptable for a species that has experienced steep population declines over the last 30 years and is facing other major threats. Furthermore, research within the EIS study area shows that densities of Cerulean Warblers are reduced in isolated forest patches left by mining and near mine edges, indicating an even greater impact beyond the direct habitat loss from mining activities. According to PIF bird conservation plans, grassland birds are not a high conservation priority within the EIS study area, and the creation of artificial habitats that may be suitable for shrub nesting species does not justify removing and fragmenting extensive mature forest areas and replacing them with poor quality, early-successional habitats. We encourage every effort to minimize the removal and fragmentation of existing mature forest habitat in the EIS study area.

Sincerely,

Steering Committee
Northeast Working Group of Partners in Flight

Impacts of Mining Activities on Mature Forest Birds. The mountaintop removal mining/valley filling practices addressed by the EIS occur throughout what can be considered the core of the breeding range for many of the PIF high priority birds of eastern mature deciduous forests, including Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Wood Thrush, Yellow-throated Vireo, and Acadian Flycatcher. According to Breeding Bird Survey (BBS) data, all of the species just mentioned occur at or near their peak abundances within the EIS study area, which largely overlaps with the Northern Cumberland Plateau physiographic area as delineated by PIF. Numerous other species of this habitat suite also occur in high relative abundances within this area, including Kentucky Warbler, Eastern Wood-Pewee, Ovenbird, and Scarlet Tanager. The mining and valley fill activities addressed by the EIS directly affect several of the primary habitats used by these species – mature deciduous forest on Appalachian ridge tops (used by Cerulean Warbler, Yellow-throated Warbler, Eastern Wood-Pewee, Scarlet Tanager, Ovenbird, Wood Thrush), and mature mixed-mesophytic forest along headwater streams ("coves" – used by Cerulean Warblers, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Acadian Flycatcher, Wood Thrush). Preliminary figures from the EIS on cumulative impacts of mining activities in the study area suggest a massive and permanent impact on the mature forest suite of birds within the study are due to the estimated forest loss of approximately 760,000 acres from issued and future permits during the 20-year period of 1992 to 2012. An additional 648,000 forested acres appears to have been lost from permitted mining activities prior to 1992.

The total cumulative forest loss from mining activities equates to an 11.5% reduction in total forest cover in the study area. Removing >10% of the forest cover from a region is likely to have negative impacts on mature forest birds, even in well-forested landscapes. As overall forest cover drops in a region, negative impacts to forest breeding birds from fragmentation and edge effects will become more severe. Work by O'Connell et al. (2000) across the Mid-Atlantic Highlands region, which includes a large part of the EIS study area, suggests that as landscapes fall below a threshold of about 82% forest cover, the ecological integrity of the forest community becomes increasingly compromised. Removing almost 12% of the forest from the EIS study area through mining activities alone will bring the % forest cover of this entire area down close to this threshold and certainly will cause some landscape-level areas within this larger area to fall well below this threshold. We consider the level of breeding habitat loss resulting from permitted and proposed mining activities to represent a significant negative impact for the suite of mature deciduous forest birds in the EIS study area, particularly for those species for which this area represents the core of their breeding range.

Specific Impacts to Cerulean Warblers. Because the Cerulean Warbler is the mature forest species of highest concern according to PIF assessments and because it has been petitioned for listing under the Endangered Species Act, we provide a more detailed analysis on the impacts that mining activities are likely to have on this species.

Population status and trends. The general status and population trends of Cerulean Warbler in most parts of its range are fairly well documented. These have been previously summarized in the USFWS Status Assessment (Hamel 2000), as well as final report to USFWS of the Cerulean Warbler Atlas Project (Rosenberg et. al., 2000). We believe that population trends as reported by the BBS are sufficiently reliable for Cerulean Warbler at range-wide and regional scales. These

trends show a roughly 4.5%-per-year decline range-wide since1966, with steep declines in nearly every region including in the core of the species' range, which overlaps almost entirely with the EIS study area.

As part of the development of a PIF North American Landbird Conservation Plan, estimates of the total continental breeding populations of most species have been developed for the purpose of setting conservation objectives. Using this method of extrapolating BBS relative abundances, the current total population estimate (using data from the decade of the 1990s) for Cerulean Warblers is about 560,000 birds, or roughly 280,000 pairs. Based on the BBS data, an estimated 70% of the total breeding population occurs in the Ohio Hills and Cumberland Plateau physiographic areas from southern Ohio and Pennsylvania, through West Virginia to Tennessee. Vast areas of suitable habitat in this region support large populations of Cerulean Warblers, especially on privately owned forestlands. We should note that although 280,000 pairs seem like a sizable population, it is among the smallest populations of any passerine bird in North America, which mostly number in the millions.

Threats to populations. We consider the major threats to Cerulean Warblers to fall within four main categories: (1) direct loss of breeding habitat from mining activities; (2) loss of breeding and migration stop-over habitat due to development; (3) loss of suitable breeding habitat from silvicultural practices; and (4) habitat loss on wintering grounds in South America. We consider the practice of mountaintop removal mining/valley filling to be the greatest immediate threat within the core of the Cerulean Warbler's breeding range.

Applying similar methods to those used in calculating total population sizes for the PIF North American Landbird Conservation Plan, BBS survey data indicate that the average breeding density of Cerulean Warblers across the Northern Cumberland Plateau physiographic area during the 1990s was 0.065 pairs/acre. Most of the EIS study area occurs in this physiographic area. This estimate does not include a time-of-day correction used in calculating the total population size, and therefore might be an underestimate. However, this density is similar to breeding densities estimated from territory mapping plots surveyed in southern West Virginia, although locally higher densities were observed in some locations. Using this BBS-derived estimate of breeding densities and applying it to the estimated forest loss of approximately 760,000 acres from issued and future mining permits between 1992 and 2012, habitat for approximately 49,400 pairs (17% of the estimated total Cerulean Warbler population) would be eliminated through mining activities during this period. This is a very rough estimate of the number of birds likely to be impacted and is based on the assumption that the entire area within permit boundaries would be disturbed. Nonetheless, we are confident in stating that breeding habitat for as much as 10%-20% of the known Cerulean Warbler population is likely to be directly eliminated by proposed and permitted mountaintop mines/valley fills during the 20-year period of 1992-2012. These numbers reflect direct loss of breeding habitat and do not reflect reductions in habitat suitability around mine sites. Research within the EIS study area has shown that densities of Cerulean Warblers are reduced in forest patches remaining from mining activities and in forest near mine edges. We consider the level of breeding habitat loss due to mining activities in the EIS study area to represent a significant negative impact for this species of high continental concern that is already experiencing steep population declines and is threatened by other major impacts such as development and loss of wintering ground habitat.

Northeast Partners in Flight comments for mountaintop mining EIS 4

Relative Conservation Value of Reclaimed Mines vs. Undisturbed Forest Habitat. We do not consider removal of extensive areas of mature forest and replacement with the poor quality, early-successional habitats resulting from current reclamation practices to be an appropriate action for bird conservation in the EIS study area. First, this habitat alteration is occurring in core breeding areas for many high priority birds of the mature eastern deciduous forest suite. Removing almost 12% of the forest cover from this area is likely to negatively impact all of these species. In particular, this area is critical for the long-term persistence of the Cerulean Warbler and the estimated forest loss from mining activities will represent a significant negative impact for this species of high continental concern. Second, current reclamation practices result in large acreages of grassland habitat, but the grassland suite of birds is a relatively low PIF conservation priority in the EIS study area. The vast majority of grassland bird species benefiting from the current mining activities are rather low in conservation priority, and this area is not a core breeding area for grassland birds. Third, current methods of reclamation following mountaintop removal mining/valley fill activities result in poor quality, early-successional habitats of grasses and shrubs that are likely to remain in these early-successional conditions for very long periods of time due to the soil disruption and compaction during the mining and reclamation process. Estimates of the length of time it will take tree species to colonize and re-forest these areas are in the many hundreds of years (e.g., 500-1000 years). The minimal value that habitats reclaimed under current methods might have for early-successional bird species does not justify replacing mature forests with extremely long-lasting, poor-quality, early-successional habitats. Maintaining extensive tracts of mature deciduous forests to support the high diversity of mature forest birds, many of which are high conservation concern species, is one of the highest PIF conservation priorities within the EIS study area. We encourage every effort to minimize the removal and fragmentation of existing mature forest habitat within the EIS study area.

REC'D DEC 3 1 2003

GLENDALE - LA CRESCENTA ADVOCATES
3924 El Caminito St.
La Crescenta, CA 91214
(818) 248-1793

December 27, 2003

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

It is to be hoped that you will see to it that the present EIR relative to mountaintop mining will adequately address the environmental issues surrounding that type of mining.

We, as a nation, have already lost hundreds of miles of streams, those streams being filled with rubble from unnecessary mountaintop mining. Mr. Forren, water is already in short supply here and around the world. We need to address this very serious problem and burying streams, thereby decreasing the supply of potable water, is certainly not the way to start.

You can begin by seeking to impress upon your boss, Mr. Bush and others in his corner, the need to emphasize the use of renewable energy sources and eliminate the use of coal completely. There is no reason whatsoever, in this day and age, for us to burn coal when energy sources such as hydrogen, natural gas, wind power, solar energy, geothermal power, etc, are available waiting only on emphasis, proper funding and, in the case of hydrogen, some further technological work.

Without water, every living thing dies! Let's protect our children and grandchildren by making sure that this EIR eliminates mountaintop mining and coal mining in general. That way we increase the supply of water while reducing the air pollution created by the burning of coal as well as keeping our mountaintops green, ecologically balanced, and pleasing to the eye.

Thank you,

Sincerely,
Richard Seeley

Francis Slider, West Virginia Chapter of the Sierra Club

December 31, 2003

REC'D JAN 0 5 2004

U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren:

As conservation chair of the West Virginia Chapter of the Sierra Club, I am submitting the following comments for the more than 1660 members of our chapter. Please consider these comments as part of the official record on the Draft Environmental Impact Statement (DEIS) on Mountaintop Removal (MTR) Mining.

MTR and valley fills are destroying the environment and culture of the southern coalfields in my home state of West Virginia. Your DEIS states that MTR has already buried 724 miles of streams in the coalfields of WV, KY, and VA. These biologically diverse streams are important in the prevention of flooding in this mountainous area. These streams channel water and allow access rain and snowmelt to be absorbed by the aquifer. MTR also destroys hundreds of thousands of acres of the most biologically diverse forest in the world. These forests prevent flooding by absorbing rain and snowmelt. I personally know many residents of the WV coalfields whose quality of life is degraded by MTR. This destructive practice is negatively effecting many people that live in these mountain communities. 1-9

I do not support Alternative 1, 2, or 3 as described in the DEIS. None of these options will protect Appalachian forests, water, or communities. In particular, I oppose the proposal to eliminate the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced. Leveling mountains and burying streams is wrong and must stop. 1-5 1-10

Sincerely,

Mr. Francis D. Slider
Conservation Chair
West Virginia Chapter of the Sierra Club
Rt 1 Box 163-A2
Middlebourne, WV 26149
304-758-2500

Seth Shteir, San Fernando Valley Audubon Society

----- Forwarded by John Forren/R3/USEPA/US on 12/26/03 08:55 AM -----

SShteir@aol.com
12/24/03 08:53 PM

To: John Forren/R3/USEPA/US@EPA
cc:
Subject: Public Comment On Mountaintop Removal-Seth Shteir, SFVAS

December 24, 2003

Dear Mr. Forren,

I hope that this e-mail finds you in good health and that you found a relaxing way to spend the holidays.

I am Vice President of the 2000 member San Fernando Valley Audubon Society. I'm writing you to urge you to withdraw the current EIS for mountaintop removal and to issue a new draft that includes alternatives to this mining practice that will minimize impact to critical habitat for wildlife.

The current EIS is incomplete in several aspects. First, it fails to assess the impacts on migratory birds such as the Cerulean Warbler. Second, it does not address the fact that 1200 miles of streams and hundreds of square miles of forested mountains have been virtually flattened by this extremely destructive mining practice. Finally, it does not include any safeguards for local communities that depend on the region's natural resources. 8-2-2

I am proud to be an environmentalist who recognizes the importance of the local economies affected by land management decisions. However, mountaintop removal practices are nonsensical and are completely dictated by securing the cheapest extraction price for industry. I am convinced that there are ways industry can thrive while protecting America's natural heritage. I urge you to take measures to curtail this practice while respecting local economies, protecting wildlife and communities. 1-9

Sincerely,

Seth D. Shteir
Vice President
San Fernando Valley Audubon Society
14355 Huston St., #225
Sherman Oaks, CA 91423
818-995-6429

Comments Regarding The Draft Programmatic Environmental Impact Statement
July 24, 2004

John R. Snider
Vice President, External Affairs, Eastern Operations
Arch Coal, Inc.

On Behalf Of The
West Virginia Coal Association

Good evening, my name is John R. Snider. For the past two years I have been employed as Vice President of External Affairs, Eastern Operations, Arch Coal. Prior to that I had worked for four years in the West Virginia Development Office, with last two serving as Executive Director. I have over 25 years experience in the field of economic development in West Virginia as well as experience in the Northern and Central Appalachian coal fields. During my time with the Development Office, I assisted with developing the rules for the West Virginia Coal Field Development Office as well as assisting in the development of funding for several post mine land use developments. I am a Certified Economic Developer. Today, I am speaking on behalf of the West Virginia Coal Association.

I would like to discuss several issues relating to the socio-economic portion of the Draft Programmatic Environmental Impact Statement.

The Gannett Fleming's document "Final Case Studies Report on Demographic Changes Related to Mountaintop Mining Operations" offers some interesting conclusions which relate to many economies which may be found in transition. West Virginia, as a whole, like many other areas of the country has been progressing thru a transitional period in that types of employment are shifting from heavy manufacturing and mining to a service based economy. Similar conclusions that Gannett Fleming makes, could be reached in many areas of the United States over the past twenty years when Census Tracts or small communities are considered individually. Long gone are the days that most miners work in the same town or census tract as the mine they are employed. Stop and think, do I live in the same census tract that I work or even the same town. In addition, the improvement of transportation systems in southern West Virginia allows miners to live wherever they want and travel to the mine. This study only includes the economic impacts in the adjacent area, whereas today's modern mine has a much greater affect geographically than in the past. 10-1-5

Several other issues also must be looked at in different light when you view what was happening during the time frame outlined by the study.

1. The population of West Virginia is declining. It is no surprise that the six communities are also declining.
2. The United States population has been for several years changing from an industrial based economy to a service oriented economy. During the time of this work, we saw many of our high paying industrial jobs go off shore. We have seen and continue to see a coal production shift from Central Appalachia to the Powder River Basin in Wyoming. As we discuss this issue today, we are seeing more of our market share being provided outside of the United States. 10-1-5
3. As our country changes from industrial to service, we are seeing many of our fine employees being left behind. West Virginia has traditionally been a heavy industry state which included at its heart the production of glass, steel, chemicals, timbering and mining. West Virginia has been impacted negatively more than other areas which have a more diversified economy. Many of our industries and mines have closed.
4. The average age of a West Virginian has increased over the past several years much quicker than the rest of the country. West Virginia average population is currently the oldest in the country. In addition, state wide we are losing school age population. Very few areas in West Virginia are gaining population and the 14 county area is no different..

Overall, Gannett Fleming did a fair job describing what was transpiring in the six small communities. If they would have looked at West Virginia, as a whole, or even some other areas of the United States which are in transition, they would have found the same trends. In fact, this study could have been transferable to many areas in transition during the same period. But in today's society you can not draw a valid economic or social conclusion on such a small area as 100 home community or a census tract. Global conditions have an affect on all economies and must be taken into account. 10-1-2

One of the ways to change many of the problems discussed in Gannett Fleming's study would be to develop usable sites for development and growth of the area. We must have rules that allow us to develop post mine land use sites to provide diversification in southern West Virginia to help create stability and growth. 1-13

We believe that a modified Alternative III offers that capability. 1-4

Thank you for taking time to listen to my presentation.

John R. Snider
Arch Coal, Inc.
10 Kenton Drive
Charleston, West Virginia 25311

"Spahr MD, John"
<Jspahr@AugustaMe d.com> To: R3 Mountaintop%EPA cc:
Subject: Please stop this habitat destruction.
12/22/2003 11:54 AM

December 30, 2003

John Forren
U.S. EPA (3EA30), 1650 Arch Street
Philadelphia, PA 19103
mountaintop.r3@epa.gov

Dear Mr. Forren,

We write on behalf of the undersigned groups, representing millions of Americans, concerning the Draft Programmatic Environmental Impact Statement on Mountain Top Mining/Valley Fill (MTM/VF) in the Appalachian region of the eastern United States. We are extremely troubled over the harmful impacts that mountaintop/valley fill mining has had and could continue to have on a wide array of aquatic and terrestrial organisms. In addition to the direct effects of habitat loss and degradation at mine sites and areas immediately adjacent, the drastic alteration of large landforms over such an extensive region could very well have negative and long-lasting effects on ecosystem processes at considerable distances from the areas more directly disturbed. 7-3-2
These concerns are not adequately addressed in the draft EIS. However, despite our serious concerns regarding the potential for disrupting ecological processes and biodiversity in general, these comments are specifically directed to issues regarding migratory birds. The impacts to forest-associated bird species of conservation concern also are not adequately or properly addressed in this draft EIS.

I. The DEIS Ignores the High Priority Assigned through Congress by Wildlife Agencies to the Conservation of Mature Forest Bird Species.

The figures from the draft EIS on cumulative impacts of mining activity in

the study area suggest a massive and permanent impact on the entire suite of
Partners in Flight priority mature forest birds within the EIS study area
(e.g., Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher)
due to a projected loss of over 380,000 acres (149,822 hectares) of
high-quality forest to mining in the next ten years. This is in addition
to
that same amount having been lost in the previous ten years. All of these
bird species are also classified as Birds of Conservation Concern by the
U.
S. Fish and Wildlife Service (USFWS 2002) within the Appalachian Bird
Conservation Region, which overlaps the area considered in the draft EIS.
This list is mandated by Congress under 1988 amendments to the Fish and
Wildlife Conservation Act and denotes species that without additional
conservation actions are likely to become candidates for listing under the
Endangered Species Act. We consider this level of habitat loss to constitute
a significant negative impact for these high priority mature forest birds,
and especially for the Cerulean Warbler, the forest species of highest
concern in this area. We are struck by the failure of the draft EIS to
address this extremely important and significant environmental impact.

7-3-2

While we don't have reliable estimates of the densities of most of these
priority species in the region, we do have them for Cerulean Warblers. This
is the forest-breeding bird species we are most concerned with because it
has suffered drastic population declines over the last several decades and
the core of its breeding range coincides very closely with the EIS study
area (Figure 1). This species has been petitioned for listing under the
Endangered Species Act and is also on the USFWS' National List of Birds
of
Conservation Concern (USFWS 2002).

8-2-5

II. The DEIS Ignores Available Scientific Data Showing Higher Bird Densities and Higher Potential Losses from Mining Impacts.

Recent research by Drs. Weakland and Wood (2002) at West Virginia University
found the average density of Cerulean Warblers territories in intact forest
near mined areas in West Virginia was 0.46 pairs/hectare (ha). Assuming each
territory provides habitat for a pair of birds, this equates to 0.92
individuals/ha. With the projected loss of over 149,822 ha to future mining
in the next ten years, this will result in a loss of 137,836 Cerulean
Warblers in the next decade. Dr. Charles Nicholson (TVA 2002) reported a
somewhat higher average density of 0.64 pairs of Cerulean Warblers per ha at
his study sites within the draft EIS study area in eastern Tennessee. If
his
density estimate is more representative of the density over the study area,
then even more ceruleans would have been impacted in the last decade and
the
same number would be impacted in the next. Either estimate represents an
unacceptable loss.

Partners in Flight (PIF), a science-based initiative dedicated to the
conservation of landbirds in the western hemisphere, estimates the global
population of Cerulean Warblers, based on relative abundance estimates
derived from 1990s Breeding Bird Survey data, to be roughly 560,000
individuals with 80% of the population breeding in the Appalachian region
which encompasses the study area (Rich et al. 2004). Applying similar
methods, BBS survey data indicate that the average breeding density of
Cerulean Warblers across the Northern Cumberland Plateau physiographic area
during the 1990s was 0.065 pairs/acre (Rich et al. 2004, Appendix B,
Rosenberg and Blancher in press). These numbers indicate that roughly 9%
of
the world's ceruleans were lost as a result of mining permitted during the
1992 to 2002 period and another 9% will be lost between 2003 and 2012 should
the level of mining the draft EIS projects in the next decade come to
fruition. In addition, we fear that in a region where Cerulean Warblers
presently occur in such high densities, the breeding habitat could already
be saturated and the individuals displaced by mines wouldn't't be able to
find new areas of high-quality breeding habitat to colonize. If this is the
case, the reproductive potential of those pairs also will be compromised
and
the ability of the population to recover will be reduced as a result.
It is important to note that these estimates of Cerulean Warbler population
loss substantially underestimate the actual impact of mountaintop mining
on
this species. By definition, mountaintop mining removes forest habitat on

8-2-5

mountain and ridge tops. Cerulean Warblers prefer ridgetops within large
blocks of mature forest (Weakland and Wood 2002) In addition, Drs. Weakland
and Wood (2002) found significantly reduced densities of breeding Cerulean
Warblers in forest fragmented by mining and in forest adjacent to mine
edges. We find it disturbing and unacceptable that Dr. Weakland and Dr.
Wood's research was not included in the draft EIS document when we know that
it was made available to those who were involved in its development. 8-2-5

III. The DEIS Fails to Address Technology Changes that will Alter Projections of Future Forest Loss

We believe that the draft EIS projection that an additional 3.4% of forest
will be lost between 2002 and 2012 may significantly underestimate the
impact of mining on hardwood forests. Not only do these figures fail to
include an estimate of the cumulative loss of cove forests from valley fill
operations, they also do not take into consideration the anticipated
increase in future demand for Appalachian coal due to the planned
construction of flue gas desulfurization units (scrubbers) at existing
coal-fired generating plants in the study area (TVA 2002). For example, the
draft EIS projects that Tennessee will issue permits causing the loss of
9,154 acres of forest in 2003 through 2012, when over 5,000 acres of surface
mining permits have already been approved between December 2002 and October
2003 (Siddell 2003). 7-5-3

IV. The DEIS Fails to Identify and Analyze Effective Mitigation Measures to
Reduce Bird Losses

The only mitigation offered in the draft EIS for the destruction of large
areas of biologically diverse hardwood forest habitat by mining operations
is a suggestion that the denuded areas could be reforested after operations
cease. While recent research indicates that some forest communities may be
reestablished on reclaimed mine sites (Holl et al. 2001), the draft EIS
concedes that initiatives to improve the establishment of forests on
reclaimed mine sites have only recently begun and "that it would be
premature to attempt to evaluate the success of these efforts at this time".
In addition, the draft EIS states that "as post-mined sites will likely lack
the requirements of slope, aspect and soil moisture needed for cove-hardwood
forest communities, it is unlikely that these particular communities can
be
re-established through reclamation". It will take many decades before these
experimental forests mature sufficiently to assess whether they will provide
suitable breeding habitat for Cerulean Warblers or any other interior
forest-breeding birds of concern. Even if reforestation was determined to be
the preferred mitigation for Cerulean Warbler habitat loss, the development
of reforestation BMPs (Action 13) would be voluntary and a state or federal
legislative change (Action 14) could take years. The suggestion that
reforestation is a panacea to mitigate the negative effects of mining on
interior forest habitat within the foreseeable future is therefore wrong
and
misleading. Furthermore, we find it extremely inappropriate that the draft
EIS suggests that a mining company could be offered an economic incentive,
through the sale of carbon credits, for planting trees to replace the forest
that they themselves destroyed during mining activities. 7-3-3

We also find it inappropriate to consider replacing forest habitat with
grassland habitat for "rare" eastern grassland species even though these
species have declined dramatically as a group in recent decades. Their
recovery and habitat restoration efforts should be targeted towards
ecosystems and landscapes where they occurred historically, not on eastern
mountaintops, where grassland habitat was rare, and currently supports high
quality forest habitats. 7-3-3

V. The DEIS Fails to Identify and Analyze Reasonable Alternatives to Avoid
Bird Losses

We find the draft EIS' failure to provide an alternative proposal that would
provide better regulation of mountain top mining to protect the environment
unacceptable and inappropriate. We believe that taken together, these two
major flaws are fatal and require the re-issuance of the draft EIS. These
fatal flaws mean the draft EIS fails to comply with NEPA. The draft EIS
needs to be cured by an EIS that appropriately addresses both the concerns
over priority bird species mentioned herein and that offers a solid
environmentally sound alternative. 4-2

The U.S. Fish and Wildlife Service's September 2002 (USFWS 9/20/02) memo clearly supports our conclusion that the draft EIS is fatally flawed. The FWS warned in the memo that publication of the draft EIS as written, "will further damage the credibility of the agencies involved." That inter-agency memo cites the proposed actions offering "only meager environmental benefits" and criticizes the draft EIS because it did not consider any options that would actually limit the area mined and the streams buried by valley fills. "There is no difference between [the alternatives]," the Fish and Wildlife officials said. "The reader is left wondering what genuine actions, if any, the agencies are actually proposing." The draft EIS erroneously only offers alternatives that would streamline the permitting process for approval of new mountaintop-removal permits. The alternatives, including the preferred alternative, offer no environmental protections and the lack of any such environmentally sound options destroys the NEPA EIS process.

The FWS memo argued for "at least one alternative to restrict, or otherwise constrain, most valley fills to ephemeral stream reaches...As we have stated repeatedly, it is the service's position that the three 'action' alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection ... let alone protection that can be quantified or even estimated in advance." 4-2

VI. Because the DEIS Is Fatally Defective, It Should Be Revised and Reissued for Public Comment and Permit Issuance Should Cease.

We do not find that the three "action" alternatives offered would improve environmental protection in any measurable way. We propose that a moratorium be placed on new mountaintop mining permits until a new draft EIS is written to provide for the avoidance of key Cerulean Warbler habitat and significant environmental protection for the Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher and other PIF priority species and FWS Birds of Conservation Concern. This moratorium should continue until a final EIS is adopted with an environmentally acceptable alternative.

We believe that NEPA requires such a moratorium as the environmental impacts are so great and the federal government has failed to complete an EIS as required, even after 5 years have passed since litigation was initially filed on this issue. Settlement of the litigation was to result in an EIS and better measures to protect the environment. The draft EIS clearly indicates that this is not occurring. Also, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current use of nationwide permits is illegal. 4-2

We conclude that mining is a short-term benefit to local economies and once the coal is extracted, the industry will leave the region. However, if the scenic vistas and natural heritage of the area are preserved, an economy buoyed by recreation and tourism would provide added value for generations to come. 11-7-2

We appreciate the opportunity to comment on this Draft Environmental Impact Statement.

Respectfully Submitted,
John Spahr, M.D.
Vice President, Virginia Society of Ornithology
Vice President, Augusta Bird Club
Waynesboro, VA

References:

Holl, K. D., C. E. Zipper and J. A. Burger. 2001. Recovery of native plant communities after mining. Virginia Cooperative Extension Publ. 460-140. [Online version available at <http://www.ext.vt.edu/pubs/mines/460-140/460-140.html>]

Rich T. D. et al. 2004 in press. PIF North American Landbird Conservation Plan. To be published by Cornell Lab of Ornithology, Ithaca, NY. [Online draft available at <http://www.birds.cornell.edu/pifCapeMay/PIF_Final_Draft.pdf>]

Rosenberg, K. V., S. E. Barker, and R. W. Rohrbaugh. 2000. An atlas of Cerulean Warbler populations: Final report to the U.S. Fish and Wildlife Service. December 2000. [Online version available at <<http://birds.cornell.edu/cewap/cwapresults.htm>>]

Rosenberg, K. V. and P. J. Blancher. In press. Setting numerical population

objectives for priority landbird species. Pg. xx-xx in Proceeding of the
3rd
International Partners in Flight Conference. C. J. Ralph and T. D. Rich
Editors. USDA Forest Service Gen. Tech. Rep. PSW-GTR-xxx, Albany, CA.

Siddell. D. 2003 Recent Tennessee Permits. Supervisor, Technical Group,
Office of Surface Mining, Knoxville, TN.

Tennessee Valley Authority. 2002. Braden Mountain surface mine;
Campbell
and
Scott Counties, Tennessee. Tennessee Valley Authority, Knoxville.

U.S. Fish Wildlife Service. 2002. Birds of conservation concern 2002.
Division of Migratory Bird Management, Arlington, Virginia. 99pp.
[Online
version available at
<<http://migratorybirds.fws.gov/reports/bcc2002.pdf
>>]

U.S. Fish Wildlife Service. 9/20/02. Comments on Draft MTM/VF EIS of
Chapter
IV (Alternatives).

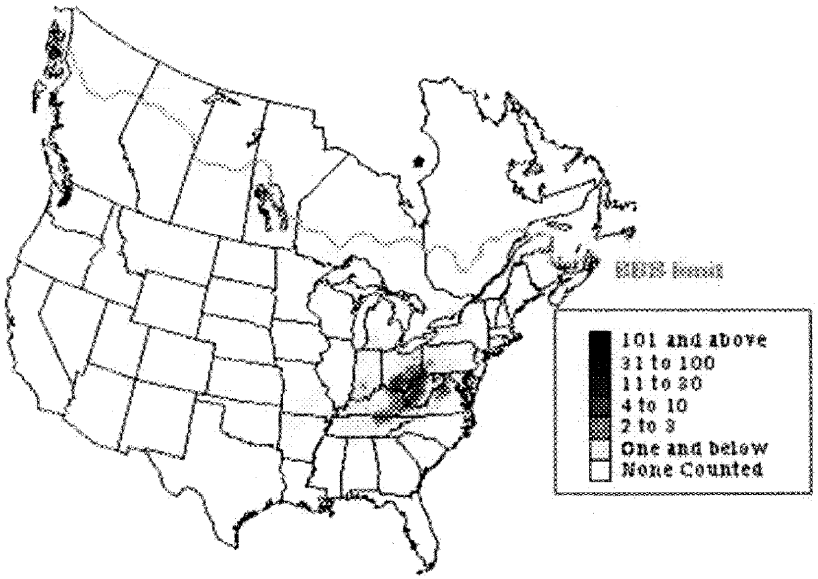
USGS. 2003. The North American Breeding Bird Survey Results and
Analysis,
1966 - 2002. <<http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>>. Cerulean
Warbler
relative abundance map [Available online at
<http://www.mbr-pwrc.usgs.gov/bbs/htm96/map617/ra6580.html>

Weakland, C. A. and P. B. Wood. 2002. Cerulean Warbler (Dendroica
cerulea)
microhabitat and landscape-level habitat Characteristics in southern
West
Virginia in relation to mountaintop mining/valley fills. Final Project
Report submitted to USGS Biological Resources Division, Species-At-Risk
Program. [Available online at http://www.forestry.caf.wvu.edu/pWood/>]

Figure 1. Cerulean Warbler (Dendroica cerulea) Summer Distribution Map.
The North American Breeding Bird Survey Results and Analysis, Relative
Abundance Map 1966 - 2002. USGS 2003.

<<...>>

These maps indicate the number of birds seen on BBS routes, grouped
into
convenient categories of relative abundance. The maps predict the
average
number of birds of the species that could be seen in about 2.5 hours of
birdwatching along roadsides (by very good birders). They are based on
mean
counts on BBS routes over the interval 1982 - 1996.



Dear Mr. Forren,

We write on behalf of the undersigned groups, representing millions of Americans, concerning the Draft Programmatic Environmental Impact Statement on Mountain Top Mining/Valley Fill (MTM/VF) in the Appalachian region of the eastern United States. We are extremely troubled over the harmful impacts that mountaintop/valley fill mining has had and could continue to have on a wide array of aquatic and terrestrial organisms. In addition to the direct effects of habitat loss and degradation at mine sites and areas immediately adjacent, the drastic alteration of large landforms over such an extensive region could very well have negative and long-lasting effects on ecosystem processes at considerable distances from the areas more directly disturbed. These concerns are not adequately addressed in the draft EIS. However, despite our serious concerns regarding the potential for disrupting ecological processes and biodiversity in general, these comments are specifically directed to issues regarding migratory birds. The impacts to forest-associated bird species of conservation concern also are not adequately or properly addressed in this draft EIS. 7-3-2

I. The DEIS Ignores the High Priority Assigned through Congress by Wildlife Agencies to the Conservation of Mature Forest Bird Species.

The figures from the draft EIS on cumulative impacts of mining activity in the study area suggest a massive and permanent impact on the entire suite of Partners in Flight priority mature forest birds within the EIS study area (e.g., Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher) due to a projected loss of over 380,000 acres (149,822 8-1-2

hectares) of high-quality forest to mining in the next ten years. This is in addition to that same amount having been lost in the previous ten years. All of these bird species are also classified as Birds of Conservation Concern by the U. S. Fish and Wildlife Service (USFWS 2002) within the Appalachian Bird Conservation Region, which overlaps the area considered in the draft EIS. This list is mandated by Congress under 1988 amendments to the Fish and Wildlife Conservation Act and denotes species that without additional conservation actions are likely to become candidates for listing under the Endangered Species Act. We consider this level of habitat loss to constitute a significant negative impact for these high priority mature forest birds, and especially for the Cerulean Warbler, the forest species of highest concern in this area. We are struck by the failure of the draft EIS to address this extremely important and significant environmental impact.

While we don't have reliable estimates of the densities of most of these priority species in the region, we do have them for Cerulean Warblers. This is the forest-breeding bird species we are most concerned with because it has suffered drastic population declines over the last several decades and the core of its breeding range coincides very closely with the EIS study area (Figure 1). This species has been petitioned for listing under the Endangered Species Act and is also on the USFWS' National List of Birds of Conservation Concern (USFWS 2002). 8-1-2

II. The DEIS Ignores Available Scientific Data Showing Higher Bird Densities and Higher Potential Losses from Mining Impacts.

Recent research by Drs. Weakland and Wood (2002) at West Virginia University found the average density of Cerulean Warblers territories in intact forest near mined areas in West Virginia was 0.46 pairs/hectare (ha). Assuming each territory provides habitat for a pair of birds, this equates to 0.92 individuals/ha. With the projected loss of over 149,822 ha to future mining in the next ten years, this will result in a loss of 137,836 Cerulean Warblers in the next decade. Dr. Charles Nicholson (TVA 2002) reported a somewhat higher average density of 0.64 pairs of Cerulean Warblers per ha at his study sites within the draft EIS study area in eastern Tennessee. If his density estimate is more representative of the density over the study area, then even more ceruleans would have been impacted in the last decade and the same number would be impacted in the next. Either estimate represents an unacceptable loss.

Partners in Flight (PIF), a science-based initiative dedicated to the conservation of landbirds in the western hemisphere, estimates the global population of Cerulean Warblers, based on relative abundance estimates derived from 1990s Breeding Bird Survey data, to be roughly 560,000 individuals with 80% of the population breeding in the Appalachian region which encompasses the study area (Rich et al. 2004). Applying similar methods, BBS survey data indicate that the average breeding density of Cerulean Warblers across the Northern Cumberland Plateau physiographic area during the 1990s was 0.065 pairs/acre (Rich et al. 2004. Appendix B, Rosenberg and Blancher in press). These numbers indicate that roughly 9% of the world's ceruleans were lost as a result of mining permitted during the 1992 to 2002 period and another 9% will be lost between 2003 and 2012 should the level of mining the draft EIS projects in the next decade come to fruition. In addition, we fear that in a region where Cerulean Warblers presently occur in such high densities, the breeding habitat could already be saturated and the individuals displaced by mines wouldn't be able to find new areas of high-quality breeding habitat to colonize. If this is the case, the 8-1-2

reproductive potential of those pairs also will be compromised and the
ability of the population to recover will be reduced as a result.
It is important to note that these estimates of Cerulean Warbler population loss substantially underestimate the actual impact of mountaintop mining on this species. By definition, mountaintop mining
removes forest habitat on mountain and ridge tops. Cerulean Warblers
prefer ridgetops within large blocks of mature forest (Weakland and Wood
2002) In addition, Drs. Weakland and Wood (2002) found significantly reduced densities of breeding Cerulean Warblers in forest fragmented by
mining and in forest adjacent to mine edges. We find it disturbing and unacceptable that Dr. Weakland and Dr. Wood's research was not included
in the draft EIS document when we know that it was made available to
those who were involved in its development. 8-1-2

III. The DEIS Fails to Address Technology Changes that will Alter Projections of Future Forest Loss

We believe that the draft EIS projection that an additional 3.4% of forest will be lost between 2002 and 2012 may significantly underestimate the impact of mining on hardwood forests. Not only do these figures fail to include an estimate of the cumulative loss of cove forests from valley fill operations, they also do not take into consideration the anticipated increase in future demand for Appalachian
coal due to the planned construction of flue gas desulfurization units (scrubbers) at existing coal-fired generating plants in the study area (TVA 2002). For example, the draft EIS projects that Tennessee will issue permits causing the loss of 9,154 acres of forest in 2003 through
2012, when over 5,000 acres of surface mining permits have already been
approved between December 2002 and October 2003 (Siddell 2003). 7-5-3

IV. The DEIS Fails to Identify and Analyze Effective Mitigation Measures to Reduce Bird Losses

The only mitigation offered in the draft EIS for the destruction of large areas of biologically diverse hardwood forest habitat by mining operations is a suggestion that the denuded areas could be reforested
after operations cease. While recent research indicates that some forest
communities may be reestablished on reclaimed mine sites (Holl et al.
2001), the draft EIS concedes that initiatives to improve the establishment of forests on reclaimed mine sites have only recently begun and "that it would be premature to attempt to evaluate the success
of these efforts at this time". In addition, the draft EIS states that "as post-mined sites will likely lack the requirements of slope, aspect and soil moisture needed for cove-hardwood forest communities, it is unlikely that these particular communities can be re-established through
reclamation". It will take many decades before these experimental forests mature sufficiently to assess whether they will provide suitable breeding habitat for Cerulean Warblers or any other interior forest-breeding birds of concern. Even if reforestation was determined
to be the preferred mitigation for Cerulean Warbler habitat loss, the development of reforestation BMPs (Action 13) would be voluntary and a
state or federal legislative change (Action 14) could take years. The suggestion that reforestation is a panacea to mitigate the negative effects of mining on interior forest habitat within the foreseeable future is therefore wrong and misleading. Furthermore, we find it extremely inappropriate that the draft EIS suggests that a mining company could be offered an economic incentive, through the sale of carbon credits, for planting trees to replace the forest that they themselves destroyed during mining activities. 7-3-3

We also find it inappropriate to consider replacing forest habitat with grassland habitat for "rare" eastern grassland species even though these

species have declined dramatically as a group in recent decades. Their
recovery and habitat restoration efforts should be targeted towards ecosystems and landscapes where they occurred historically, not on eastern mountaintops, where grassland habitat was rare, and currently
supports high quality forest habitats.

V. The DEIS Fails to Identify and Analyze Reasonable Alternatives to Avoid Bird Losses

We find the draft EIS' failure to provide an alternative proposal that would provide better regulation of mountain top mining to protect the environment unacceptable and inappropriate. We believe that taken together, these two major flaws are fatal and require the re-issuance of
the draft EIS. These fatal flaws mean the draft EIS fails to comply with NEPA. The draft EIS needs to be cured by an EIS that appropriately
addresses both the concerns over priority bird species mentioned herein
and that offers a solid environmentally sound alternative.

The U.S. Fish and Wildlife Service's September 2002 (USFWS 9/20/02) memo
clearly supports our conclusion that the draft EIS is fatally flawed. The FWS warned in the memo that publication of the draft EIS as written,
"will further damage the credibility of the agencies involved." That inter-agency memo cites the proposed actions offering "only meager environmental benefits" and criticizes the draft EIS because it did not consider any options that would actually limit the area mined and the streams buried by valley fills. "There is no difference between [the alternatives]," the Fish and Wildlife officials said. "The reader is left wondering what genuine actions, if any, the agencies are actually proposing." The draft EIS erroneously only offers alternatives that would streamline the permitting process for approval of new mountaintop-removal permits. The alternatives, including the preferred

4-2

alternative, offer no environmental protections and the lack of any such
environmentally sound options destroys the NEPA EIS process.

The FWS memo argued for "at least one alternative to restrict, or otherwise constrain, most valley fills to ephemeral stream reaches...As
we have stated repeatedly, it is the service's position that the three 'action' alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection ... let alone protection
that can be quantified or even estimated in advance."

VI. Because the DEIS Is Fatally Defective, It Should Be Revised and Reissued for Public Comment and Permit Issuance Should Cease.

We do not find that the three "action" alternatives offered would improve environmental protection in any measurable way. We propose that
a moratorium be placed on new mountaintop mining permits until a new
draft EIS is written to provide for the avoidance of key Cerulean Warbler habitat and significant environmental protection for the Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood
Thrush, Yellow-throated Vireo, Acadian Flycatcher and other PIF priority
species and FWS Birds of Conservation Concern. This moratorium should
continue until a final EIS is adopted with an environmentally acceptable
alternative.

4-2

We believe that NEPA requires such a moratorium as the environmental
impacts are so great and the federal government has failed to complete
an EIS as required, even after 5 years have passed since litigation was
initially filed on this issue. Settlement of the litigation was to

result in an EIS and better measures to protect the environment. The draft EIS clearly indicates that this is not occurring. Also, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current use of nationwide permits is illegal. 4-2

We conclude that mining is a short-term benefit to local economies and once the coal is extracted, the industry will leave the region. However, if the scenic vistas and natural heritage of the area are preserved, an economy buoyed by recreation and tourism would provide added value for generations to come. 11-7-2

We appreciate the opportunity to comment on this Draft Environmental Impact Statement.

Respectfully Submitted,

Stephen P. Stewart
Seven Hills Birdwatchers
Rome, Georgia

References:

Holl, K. D., C. E. Zipper and J. A. Burger. 2001. Recovery of native plant communities after mining. Virginia Cooperative Extension Publ. 460-140. [Online version available at < http://www.ext.vt.edu/pubs/mines/460-140/460-140.html>]

Rich T. D. et al. 2004 in press. PIF North American Landbird Conservation Plan. To be published by Cornell Lab of Ornithology, Ithaca, NY. [Online draft available at http://www.birds.cornell.edu/pifCapeMay/PIF_Final_Draft.pdf]

Rosenberg, K. V., S. E. Barker, and R. W. Rohrbaugh. 2000. An atlas of Cerulean Warbler populations: Final report to the U.S. Fish and Wildlife Service. December 2000. [Online version available at < http://birds.cornell.edu/cewap/cwapresults.htm>]

Rosenberg, K. V. and P. J. Blancher. In press. Setting numerical population objectives for priority landbird species. Pg. xx-xx in Proceeding of the 3rd International Partners in Flight Conference. C. J. Ralph and T. D. Rich Editors. USDA Forest Service Gen. Tech. Rep. PFW-GTR-xxx, Albany, CA.

Siddell. D. 2003 Recent Tennessee Permits. Supervisor, Technical Group, Office of Surface Mining, Knoxville, TN.

Tennessee Valley Authority. 2002. Braden Mountain surface mine; Campbell and Scott Counties, Tennessee. Tennessee Valley Authority, Knoxville.

U.S. Fish Wildlife Service. 2002. Birds of conservation concern 2002. Division of Migratory Bird Management, Arlington, Virginia. 99pp. [Online version available at < http://migratorybirds.fws.gov/reports/bcc2002.pdf>]

U.S. Fish Wildlife Service. 9/20/02. Comments on Draft MTM/VF EIS of Chapter IV (Alternatives).

USGS. 2003. The North American Breeding Bird Survey Results and Analysis, 1966 – 2002. <http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>. Cerulean Warbler relative abundance map [Available online at <http://www.mbr-pwrc.usgs.gov/bbs/htm96/map617/ra6580.html>

Weakland, C. A. and P. B. Wood. 2002. Cerulean Warbler (Dendroica cerulea) microhabitat and landscape-level habitat Characteristics in southern West Virginia in relation to mountaintop mining/valley fills.

Final Project Report submitted to USGS Biological Resources Division,
Species-At-Risk Program. [Available online at http://www.forestry.caf.wvu.edu/pWood/>]

REC'D AUG 0 4 2003

Ohio Valley Environmental Coalition
P.O Box 6753
Huntington, WV 25773-6753
Ph. 304-522-0246
www.ohvec.org
Fax 304-525-6984

August 4, 2003

Mr. John Forren,
U.S. EPA (3ES30)
1650 Arch Street,
Philadelphia, PA 19103
Fax: 1 215 814 2783

Dear Mr. Forren:

Oh behalf of the Ohio Valley Environmental Coalition, I write to request a 90-day extension to the public comment period on the Draft Environmental Impacts Statement on mountaintop removal coal mining.

Since the comment period began, OVEC has been attempting to collect comments from coalfield residents, while also studying the massive DEIS document. Simply stated, we need more time. We cannot possibly complete our task by August 29th, the current comment period deadline. 3-5

Thanks you for your attention to this request.

Sincerely,

~Vivian Stockman~

Vivian Stockman
OVEC project coordinator

Ohio Valley Environmental Coalition
P.O Box 6753
Huntington, WV 25773-6753
Ph. 304-522-0246
www.ohvec.org
Fax 304-525-6984

January 5, 2004

REC'D JAN 0 8 2004

John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:
Attached please find Mountaintop Removal/Valley Fill coal mining DEIS comments from the Ohio Valley Environmental Coalition, submitted in addition to comments from OVEC's Counsel. The comments are in the form of the attached Word document labeled, "The Social and Cultural Effects of Mountaintop Removal/ Valley Fill Coal Mining."

The other attachment is one of the addendums, which are listed on the second page of the attached Word document.

Tomorrow, I will send via the US Postal Service, these same documents on a CD. Accompanying those will be the original documents mentioned in the comments. Also, on the CD will be the addendums that I did not include on this e-mail as they were very large, byte-wise.

I will actually send two copies of the CD. You see, my document is 61 pages long and I thought it would be best sent on a CD, especially given the photo addendums. On Dec. 28th or so I called your phone line to check with you that a CD would be ok. Your voice mail was on, so I talked with a receptionist who directed me to someone else in your office working on the EIS. He didn't answer the phone, so I left a message asking him to e-mail me with an answer regarding a CD submission of comments. In an e-mail he assured me that a CD would be fine to send, and he asked that I send a copy for both you and him. Unfortunately, I inadvertently deleted that e-mail and I cannot remember his name. Anyway, the extra CD is for him, and I trust you'll know to whom I am referring.

I apologize if my submitting the same comments both via e-mail and US mail makes things harder for you, as I imagine you are quite inundated with comments. But since both means of transmission rely on computers (e-mail and copying the files correctly to the CD), I just want to back up one submission format with another.

Good luck with the stack of comments!

Sincerely,

Vivian A Stockman

Vivian Stockman, OVEC organizer

Hello my name is Maria Pitzer. This is my children, Jessie and Chrystal Gunnoe..

We are from Bobwhite in Boone County. We are against Mountaintop removal. We are a family that lives in the constant shadow of mountaintop removal, valley fills and slurry ponds. The mining around us has destroyed our quality of life. The blasting from the mines is a constant reminder of why our lives have changed so much. My children are not allowed to play in the water that runs thru our property because the ponds run straight into it. The aquatic life in this stream is all but gone. Catching bait or fishing is a waste of time now there isn anything there to catch, unless it would be some incurable disease. Who can say that this will not endanger my children health? You, the panel of people who say that what the mine companies are doing is okay. I sorry but this has not yet been a trustworthy source.

I have lived on this same property for 35 years of my life. In the same town with the same people, that all saying the same thing ountaintop removal is going to run us out of our homes and off our land like it has so many before us and I beginning to wonder, are they right?

We were flooded in 2001-3 times. With each rainstorm the creek and river fills up more with rocks and debris. In 2002 we were flooded once again. The creek now runs much deeper and faster than it ever has. Then on June 16th of 2003 we were flooded horribly. The storm was what the mine company called a one in a hundred year storm. I heard it was an act of God, which is like saying that the buffalo flood was an act of God. I remember when I was a child it rained until I was running in water to my knees in this same yard that is now gone. Why didn these catastrophic floods didn happen then? Why are they happening now? MTR is why. I not sure what all the scientific tests tell you, but Common sense tells me that if you pour water onto a rock it going to roll off, if you pour into soil it will absorb.

The flood on June 16th has ruined our life. The rains came and the hallow coming thru our property rose so fast that we didn have a chance to react. We were trapped in every direction. The river running by me was still clear and the hallow washing into this river was raging. I was being flooded by a stream that 3 years ago I could step over. With in 3 hours after it started raining we had lost almost everything. The water coming by me was sent in on mudslides that filled the creek and move the water closer to our house. The mudslide tore thru my barn thru my orchard of fruit trees. Where there was one of our dogs tied. The water and mud came so fast that we couldn get our dog out. The next morning his collar was lying in the water new path. As the water and mud continued down it filled a 5 foot culvert that had just recently been put back in from the storms of 2001. From 1981 until 2001 it was 3 foot culvert. It was part of our access. The water washed around the 5ft culvert and took out my septic system, my bridge and all of my drive way and most of my yard. My yard now drops into a 15 foot crater. It not safe for my children to play in their own yard. The entire path that this creek took thru our property has been destroyed. There is still more mudslides waiting on me. The quality of our well water has compromised to say the least. Up until the 16th we had good water but now it terrible.. 17-1-2

Thank god that the water and mud stopped 20 feet short of our house. Our house as of right now is okay. OUR HOME IS DISTROYED! The life that we have always known is now non-existent. Hikes thru our own land is now unsafe. We are of Cherokee nationality and we have always been taught to live off the land. This heritage will no longer be passed down because it is being destroyed with each blast. Everyone that has a hand in allowing this mining practice to continue is allowing WV and its heritage to fade away. For what, the almighty dollar. We have to live here when you are gone. 10-4-2

As a family we use to love to sit on my front porch and watch a storm come and go. Now it terrifies us to see a storm come. When the rains start everyone gets scared of what going to happen next? If it raining no one in our house sleeps. My daughter at 9 years old is constantly worried with the mining going on around us. She seen a sticker that said Coal keeps the lights on she replied by saying yeah but the trees keep our air clean. She knows what affect MTR and valley fill and ponds are having on us. Yet the college educated scientist is still looking for the reasons we are all getting flooded so horribly, so often. Hopefully this will open up your eyes and make you see that the community impact of MTR is simply devastation. The rights of people in Baghdad it seems are more important than the rights of the U.S. Citizens. I know our rights to life liberty and the pursuit of happiness are pretty much gone. Thanks to MTR and its practices. If you can sleep with yourselves, I guess we have no choice but to stay up with the storms. 17-2-2

July 21, 2003
To the EPA and Army Corp of Engineers---my comments on the Environmental Impact Statement

My name is Patsy Carter and I live on the Tug Fork River. AS I watch the beautiful green river, it makes me feel so peaceful and relaxed, then all at once the river turns black from a Massey Coal Sludge spill. I am not against coal mining, but we need to deep mine coal and mine responsibly. There is no need to destroy these mountains and streams and our children's future to mine coal.

I fear for my life and my family's life when it rains. I think of ways to run for the hills for my life, from the floods caused by strip mining. I plan to keep my family pictures closes to me so that I can save them. 17-2-2

The strip mining is taking everything from us and our children. They will have no future and will never be able to live as true Mountaineers as we have and that is part of our children's heritage. 10-4-2

Under this blackened horrible life we are forced to live with because of irresponsible mining---this has made our state "Almost Hell"--instead of -- "Almost Heaven". The people in Logan and Mingo county needs to wake up.

Stop Mountaintop Removal and stop valley fill mining---stop filling in the headwaters of our streams.

Patsy Carter

Patsy Carter

Monroe has lived here for 55 years
And hadn't had any problems like
This

1999

Mirrored Tile Fell in
Bath Tub. Had To put up
New Shower Wall.

Water now seeping in basement.
Wall Cabinet Fell - Broke All my
dishes. (basement)

Had To buy new dish washer
And oven - doors wouldn't Shut.

Had To have main door repaired
Wouldn't Shut enough To Lock. 16-1-2

All doors inside house
including Cabinet doors
Won't Shut Good.

Ceiling Tile on Sunporch
Falling.

Floor hoored up in Living
room, Dining room & Bath room.

Walls in 3 bedroom bowed out.
Tile And Mirrored Tile in bathroom

Coming down.

Had To Screw paneling back
in 3 bedrooms Where it came
loose. 16-1-2

Counters unlevel now.
Furniture Stayed Covered with dust
Pictures won't hang Straight
now.
All windows have To be Screwed Shut
Have White Shingles on roof
Which is now Black 15-1-2

Since '95 I have had 3
heat pumps put in.

Blocks in basement Cracked
Can See Outside - we put
Silicone in crack. (Several)
Large crack by meter box
outside. 16-1-2

Out building has Large
Cracks - Water now Coming
in Cellar

Margaret Crouch

M Crouch
Monroe Crouch

K.T.

COUNTER LEANING
~~CUPBOARD~~ CUPBOARD DOORS WONT SHUT
DISH WASH. WONT SHUT
GARBAGE DISP. ~~BROKE~~ WONT WORK LEAKING
WATER STAYS IN ONESIDE OF SINK
BOCK OF SINK COMMING APART

DIN. RM UPPER MOULDING PULLING APART
WALL BULDGE
FLOOR DIPPED DOWN

BED RM #2
PANELING COMMING LOOSE
OUTER WALL PANELING BULDGING OUT.

BED RM #3
SAME AS #2

BED RM #1
SAME AS #2

HALLWAY
WALL BULDGED OUT

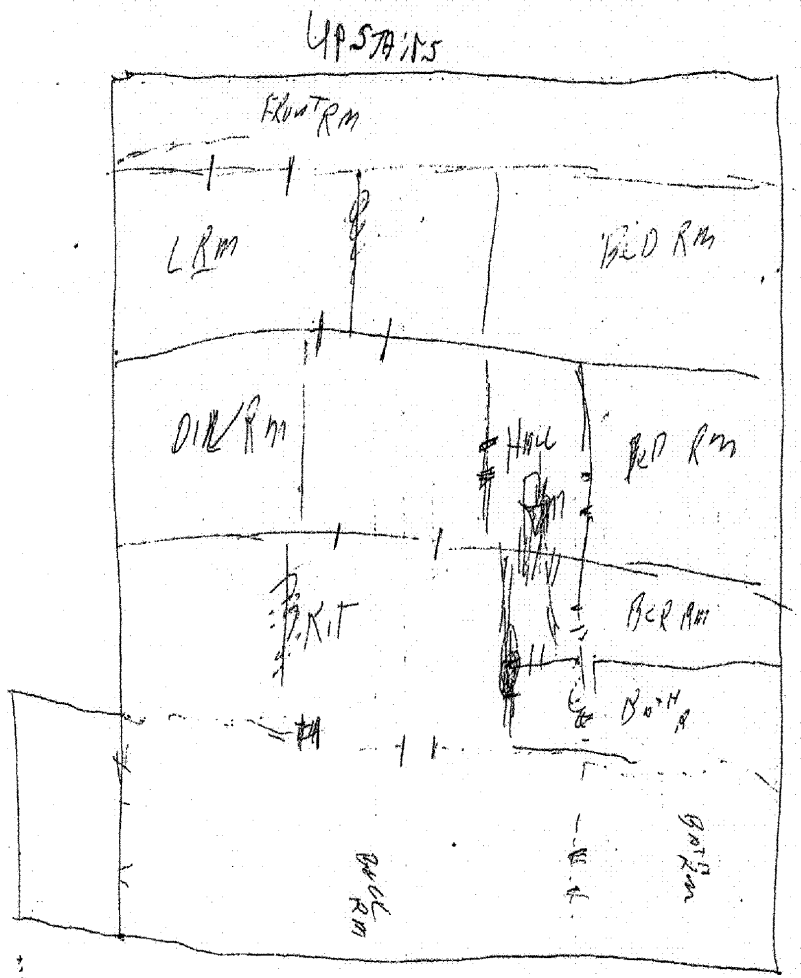
BATH I HAD TO PUT NEW SHOWER FEB-5-1999
TILE LOOSE, SOME FELL OFF
SHOWER DOORS WONT CLOSE
MIRROR TILE AROUND SINK COMMING OFF
WALL CABNET FELL BROKE DISHES.
WATTER RUNING IN FREZER ROOM

16-1-2

LIVE RM
FLOOR BULDGING UNDER CARPET
PICTURES WONT HANG STRAIGHT ON WALL

FRONT PORCH RM
CEILING TILE BULDGING AND COMMING OFF
FRONT DOOR DROPPED (ON ONE SIDE) WONT SHUT
~~SHUT~~

16-1-2



Mountain Top Removal is Massive Ruination not only to the beautiful Appalachian Mountains of "est Virginia, but also to every creature whose existance depends on thes e mountains for their survival, from the streams covered by Valley Fills to the valleys below, where Citizens dwell.

It leaves barren lands, valleys filled with debris and polluted streams and airways from Rock Dust and Coal Dust. It destroys Land, Citizens possessions and their health, it leaves Slurry Impoundments of Toxic disposal seeping into our water table. 1-9

What once started as an asset to the State of West Virginia has become a liability and the State of West Virginia tax payers are paying for their damages.

Hazards of Mountain Top Removal

Barren mountains

Endangered Species

Endangered Trees

Flooding

Toxic Valley Fills

Air Pollution

Contaminated Water

Destruction to Citizens Property

Blasting Damages

Health Hazards

Damaged Highways

Damaged Bridges

Unsafe Run-off Ponds

Slurry Water Spills

Damed-up Rivers

1-9

My scars from mountaintop removal strip mining have been more psychological than physical.

All my life, I have been free to roam the mountains and valleys near my home. Now, I would be considered a lawbreaker and a trespasser if I were to go back to those places. The first thing a coal company does when it takes a lease is to build a gate, hire security guards (whom they dress as county deputies to further intimidate the public), and install cameras to limit access. I consider this to be an infringement of my civil rights. 10-2-2

Sometimes a blast from a nearby mountaintop surface mine will rattle the windows and doors in my house, even to the point of hearing the sheetrock tear from the nails in the ceiling, and if the blasting gets closer the whole house may slip off the props holding it up and slide onto the railroad tracks down below.

And maybe a large boulder from the cliffs up above the house will be dislodged by the blasting and destroy the house. 16-1-2

I have Public Service District water, but I also have a deep well which I hope will not be harmed by the blasting.

The dust from the big trucks and from the traffic going to the mines is awful and the company knows its awful, but I almost have to beg the company to put down water to settle the dust.

The large supply trucks going to the mines are slowly breaking down the truss bridge which is the community's only outlet to the main highway. 15-2-2

My yard is full of squirrels, rabbits, and bears that have been chased out of the mountains by the blasting of the strip miners and by the logging which is a precursor to mountaintop removal stripping. The little animals coming out of the mountains are nothing more than skin and bones because their food source has been removed. I love to feed these little animals, but I would like to see the coal companies and logging companies pay part of the feed bill.

I would say that mountaintop removal strip mining has had a severe impact on my life and the life of my community.

Sincerely yours,

Richard A. Bradford
Edwight, W.Va.

Richard A. Bradford

July 23, 2003

To EIS hearing agencies:

I want to voice my opinion AGAINST Mountaintop Removal Valley Fill mining. This mining is NOT producing jobs, just the opposite, it is destroying jobs. 1-9

The town of Whitesville is dying with each new surface mine. The surrounding communities are disappearing from the effects of Mountaintop Removal, the blasting and the flooding. The animals are running from the hills from lack of habitat and are coming down into our homes and yards.

The blasting is destroying people's homes and then we have floods caused by this type of mining. Our children will NOT have a place to live and our mountain culture and heritage is being destroyed with each mountain.

We are the poorest people and we live in the coal rich counties. Why? 10-2-2

The coal companies DO NOT put anything back of economic development. There is NOT one development site on the 90,000 acres destroyed in the Coal River Valley. The coal field schools are being closed and as a matter of fact—2 schools was closed this year and both within 1 mile of many Massey Energy mines. Coal is NOT giving anything back.

President Bush should come to these hollows and talk to the people that live with the effects of this mining. The recommendations in this study is pure HOGWASH!!!!!!!!!

Lisa Henderson
P.O. 3
Rock Creek, WV 25174

P.S. I live in the coalfields, born & raised.

Lisa Henderson

July 21, 2003

My name is Jack Brown, Jr. and I live at 104 Finley Circle in Walhonda Villiage which is in the Clear Creek Hollow. I am a life time resident of the great State of West Virginia. I was born in 1935 at Edwight, WVA and my dad was a retired coal miner. I watched him die of black lung 6 years ago.

When I was a small boy living in the coal camp at Edwight, Whitesville and the surrounding areas there was thousands of coal miners working in the mines, not like today only a very few work in the mines.

I have seen the streams run black with coal dust. But not the whole tops of mountains leveled. The sludge dams they have built and the water they have pouleted coal trucks ruining the highways for only a few real jobs? Believe me I am not against jobs.

When they poulted in the old day's at least 10's of 1000's of coal miners had good paying jobs. Then the let down happened the mines shut down and the coal maket dried up, people left the state to find work.

But here we go again big coal companies have found a cheaper way to get the coal. Not like my dad got it, but by removing 1,000's of mountain top acres filling in the little hollow streams. I used to catch spring lizards for fish bait. We don't find the wild things in the mountains like that any more.

Big coal have bought and paid for poultions they own and don't give me much of a say so in the matter. They promise me better but big coal uses their money to change the laws to suit them.

I watched the flood waters wash my brothers house killing his animals and leaving him homeless. I saw what happened to Boger Hollar and Sycamore Hollow when the sludge ponds broke. I watched my friends and nieghbors cry wondering what to do next. 1-9

Now what did big coal do? Not our fault an act of God it wasn't our fault the dam busted and you cry babies lost everything you had.

In finishing this little letter I'm going to stay here in my little home and I'm going to fight with the big coal for a decent place to live without a polluted enviornment like we have now and not one law maker to go to bat for me.

I guess I'll be fighting for a long time or at least until someone does something to stop this land raping, pouliting the water like big coal is doing. Oh yes before I close the Governor of our State will only be a one-term governor so if you can stop the raping of my beautiful mountains and can stand up to big coal. Please give me you name I want to stand behind you and support you for governor. Thank you

Jack Brown Jr.

Citizens Comments Concerning Coal Waste Impoundments

To whom it may Concern: I as a Resident & Business owner of mingo Co I think if you Build these ponds around Residents you should Buy us out & Relocate us. Don't put people in danger Coal is not worth our Health or lives put in mind 1st I'm all for mining Coal but do it safe and there won't be no problems after all as a owner or a paying place if I don't do it right they the people would put me out of operation so lets do it right and there won't be no problems and I wouldn't Blame them. Thank you.

NAME: Troy Columbia

DATE: 7-7-03

P.S. SO. Do it Right THAT'S The ONLY WAY!

Citizens Comments Concerning Coal Waste Impoundments

Coal waste impoundments are an accident just waiting to happen I base this opinion from past experiences; Buffalo Creek, Logan County, WVa, and Wolf Creek, Martin County, KY.

Also I can see no possible way that the people in this Valley could be evacuated in case the impoundment fails

NAME: William Hall

DATE: 7/3/03

Rt 3, Box 78
Milton W.V.
25670

Citizens Comments Concerning Coal Waste Impoundments

I am opposed to the Slurry pond impoundment With are the rain I am afraid it will break And we will have a disaster like Buffalo Creek I live below the pond in a valley and if it breaches there will be no place to go fast enough to reach safety, lives are endangered here, Also the more they blast and mine the worse our water gets - the dust is awful

NAME: Dottie Maynard

DATE: 7-1-03

Citizens Comments Concerning Coal Waste Impoundments

We have noticed some cracking in our sidewalk. We would be very concerned if a pond was installed in our area. We don't want to see another disaster from this action. A crack in the sidewalk is very minor, compared to the disaster a pond would possibly make. We can live with sidewalk cracks, hopefully thats all that will occur.

NAME: Gary & Brenda Hunt

DATE: July 1, 2003

Citizens Comments Concerning Coal Waste Impoundments

I am against blasting and the mining underground. If they were to mine, we would be forced to move yet again from the area. Strip mines are not a necessity around such a rural area. They would cause noise and water, our residents all around Hall Creek as well as Hill Creek Hollow. Also, mountaintop removal could run sludge to runoff into streams, creating even more impure water for all life, not just humans. We must take care of what we get, because if we don't do something, some needless disaster will!

NAME: Bobby Stuesill

DATE: July 3, 2003

Citizens Comments Concerning Coal Waste Impoundments

Structural Damage, cracks all in garage floor, cracks in block and cracks (hairline) all over house, roof, new large one, caused from blasting in early morning hrs. Value of property dropped when sludge pond was approved by State. We were declared as living in high risk zone. Noise from mine equipment day and night and coal dust damage. Several occupants would prefer to relocate and would like to be bought out for a fair market price and relocation approved. New garage, cement and home improvements age 5 yrs. old

Fred Smith

NAME: Rt. 1 Box 182 Dilliston, W.V. 25670

DATE: 7/2/03

Citizens Comments Concerning Coal Waste Impoundments

I worry about the safety of my Children and grandchildren. I dont think these impoundments can be made safe. The underground mining in the area could affect this impoundment. The mineral rights I own can never be recovered because of the presence of this coal waste impoundment. It has devalued my property. The added truck traffic and trains have made our lives miserable. Our well water quality has been affected as well.

NAME: James F. Maynard

DATE: 4 July 03

Citizens Comments Concerning Coal Waste Impoundments

Living near a Coal Waste Impoundment, not only depreciate the value of property for the home owner, or puts ground water supply in to question, or anxiety during heavy rain periods, thinking this may have, but it devaluates life itself.

To anyone not living in the Coal fields. We are giving up our environment, so you may light yours.

Please think of us hillbillies, when flipping your light switch.

NAME: Walter Young

DATE: 7-1-2003

RR 3 Box 191
Delbarton, W.V. 25670
Phone (304) 475-4558

Citizens Comments Concerning Coal Waste Impoundments

Having a Coal Waste impoundment Wih-in 14 mile up Stream is a Very Enjoyous Situation. Not to Mention the dust and Coal Truck traffic every day which is a Very Unhealthy environment to any one, Just Wonder what it is doing to our Underground Water supply, just to put in Words its like living in Exile. it has distroyd our Way of life.

NAME: Carol Young RT. 3, Box 191 Delbarton W.V.

DATE: 7-1-03

Citizens Comments Concerning Coal Waste Impoundments

First you Wonder What the Coal Companies are releasing in the Water. If it will Make you sick or cause death before your time If it dont Kill you. The next thing you worrie about is if this thing burst will you be alive or if everything you work for will destory you live in a "Panic" from one Month to the next and if it rains for 2 or 3 days you get very anxious. I dont think this is anyway to live. next you Wonder these Coal Company are hiding?

NAME: Leroy Runyon

DATE: July 2 2003

Po Box 171

Delbarton Wva 25670

Citizens Comments Concerning Coal Waste Impoundments

Fear Anxious Panicky afraid these are a few word I use to say how I feel about Coal Waste Impoundments. When the TV or Radio give flash flood warning. you wonder if you are going to be alive the next Minute or not. if it going to be another Buffalo Creek or Martin County. you wonder what the Coal company are releasing from the coal Impoundment in the water tables that you are drinking and Why are they are so secret about these Coal Impoundment.

NAME: Geneva Runyon

DATE: July 2 2003

Citizens Comments Concerning Coal Waste Impoundments

My family and I feel threatened by the presence of the impoundment that is constructed at Delbarton Mining Company. When it rains heavy, we worry what could happen if it broke. We are also concerned about how the underground mines will affect the stability of the impoundment. Also, there is more dust in the area which is hurting people and causing breathing problems.

NAME: Larry & Alisa Maynard

DATE: 07-02-03

Rt 3 Bx 185-B
Delbarton, WV 25670

Citizens Comments Concerning Coal Waste Impoundments

Blasting Shales my foundation
Coal dust is all over everything
& when I'm running over loaded way to fast
Our well water is ruined
The Slurry pond is too dangerous for all of us
that live here in this area. So many of this pond
level for different reasons. Don't want to be one of the
ones to get washed away

NAME: Betty Wilson

DATE: June 30, 2003

Citizens Comments Concerning Coal Waste Impoundments

The fact that no one let me
or my family know about the
Sludge pond at the mine site.
really upsets me. It's a scary
thing to think that it could
break, and wash us away, like
other sludge ponds has done in
other places & to see this in
News papers & on TV. I would
really hate for this to happen
in my Neighbor hood. I have two
children I try hard to protect. I
can't protect them
from this!

NAME: Dorothy F.

DATE: 7-07-03

Comments of the
Ohio Valley Environmental Coalition (OVEC)
PO Box 6753
Huntington, WV 25773-6753

on the

Draft Programmatic Environmental Impact Statement on
Mountaintop Removal Mining/Valley Fill Activities in Appalachia

The Social and Cultural Effects of Mountaintop Removal/ Valley Fill Coal Mining

Submitted in supplement to comments prepared for OVEC by James Hecker and Joseph Lovett, counsel for the West Virginia Highlands Conservancy and OVEC

Compiled by Vivian Stockman, Ohio Valley Environmental Coalition, from information collected from coalfield residents, field observations, news reports and websites, Coal River Mountain Watch and Delbarton Environmental Community Awareness Foundation assisted in collecting this information.

Sections

Introduction… …03

Blasting… …05

Coal dust… …32

Coal trucks… …34

Comments from individuals… ...37

Disenchantment with the political process… …47

Externalized costs... …48

Flooding… …51

Falling property values… …53

Lost culture / way of life… …53

Sludge impoundments / blackwater spills… …55

Stress / Fear / Health… …61

Conclusion… …61

Addendums

Original copies of comments from individuals

Photos of blasting damage

List of blasting complaints

Preliminary Performance Review –OEB

Photos of MTR—"Minimal" Impact?

Introduction
The Ohio Valley Environmental Coalition (OVEC) is a grassroots environmental group based in Huntington, W. Va. OVEC's members oppose mountain removal / valley fill coal mining. We have about 1500 members, mostly from West Virginia, many from regions where MTR is practiced.

These Draft Environmental Impact Statement (DEIS) comments are submitted as a supplement to the comments prepared for OVEC by James Hecker and Joseph Lovett, counsel for the West Virginia Highlands Conservancy and OVEC. Please refer to those comments for specific arguments detailing how the DEIS violates the 1998 Bragg Settlement Agreement by failing to include Action Alternatives to minimize environmental impacts. That document enumerates many other outrageous failures to adhere to law within the DEIS.

The DEIS on mountaintop removal / valley fill coal mining (MTR) fails miserably to study, measure, quantify, report and make recommendations on the social and cultural effects of mountaintop removal coal mining. Some of those effects are detailed herein, but this is by no means an exhaustive accounting of the full spectrum of MTR's social and cultural impacts. The agencies in charge of creating a valid scientific EIS on MTR must make every effort to exhaustively study and quantify the social and cultural impacts of mountaintop removal. At the very minimum, the social and *current* cultural effects of MTR removal listed herein must be taken into account in the EIS. The EIS recommendations must accurately reflect these effects and must include recommendations for actions that will relieve and eliminate the negative social and cultural impacts of mountaintop removal / valley fill coal mining.

If you take a drive in regions where coal companies practice MTR, some of the social and cultural effects of this form of mining are readily apparent. Follow a public road in Kanawha County, W. Va., heading toward the community of Republic. You'll find a gate across the *public* road. Community gone, access denied, MTR underway. Head toward Mud in Lincoln County. Only one home remaining, and that's in Arch Coal's cross hairs. The homes that were up Connelly Branch are gone, the home sites and the branch itself buried under millions of tons of former mountains. In Logan County, all that is left of Dehue are the broken foundations of homes. Where there is MTR, you'll find this scenario repeated. THE EIS must make an effort to list the communities lost forever to MTR and document or quantify what the losses mean for Appalachian culture.

Early in 2004, the Falling Mountain music label will release the musical CD, "Moving Mountains: Appalachian Voices Rise Up." Artie, W.Va., resident Joe Barnett has a track on this CD, in which he speaks about MTR. His words give a good summary of the various MTR-related social and cultural impacts suffered by people and communities that have the misfortune of being near MTR operations:

> My name is Joe Barnett. I live in Artie WV. I live up in the head of a little hollow that has been affected by MTR in a very adverse way. The coal company came in initially and said that they were going to do a little strip mining and said that it wouldn't do any harm to our community. So they got their permits and they came in and they started to cut timber and ran off all the wildlife, and then they started their valley fill, polluted our streams, killed off our fish. Basically they came in and they raped our community.

10-2-2

> Then, as a result of that we got a flood that washed a lot of people's properties out. And they came in to repair the damage from the flood and they cut our water supply off. And everything that we have got them to do we have had to force them with a lawyer to do. It makes us feel like we are second class citizens.
>
> They also effectively turned neighbor against neighbor, family against family. It's really…not only did they rape the mountains and the hollows but they are splitting up the communities too.
>
> I've worked in the mines since 1974, but it was all underground mining. And this valley fill mining that comes in…they first come in and they just cut down every tree in sight, that's called clear cutting. They just completely clean the mountainside off. And then they start dynamiting and shaking your homes up. Then once they start blasting, the rock they just start pushing it over into whatever valley is nearby. They fill in stream beds and they run off game.
>
> **Us country people like to dig up ramps in the spring and we like to ginseng in the fall. They wipe out both of those. We deer hunt and fish. That's no longer available to us. They have successfully destroyed our way of life and our communities, is what they've really done.**
>
> We have people in the community who are in their mid-eighties, and in all their lives they have never seen floods in the hollow like this. In 1997 the first flood came and it cost two people their lives in our community, a woman and a little boy. And in 2001 we had three floods. Each flood does its fair share of damage. The companies not only get away with this, the state will approve permits for them, and the biggest insult to our community and our way of life is then the company goes public and calls it an act of God. And that infuriates me, because God did not set those mountains and valleys there to be destroyed.
>
> A lot of times when the coal companies go before judges they can get judges to look at it from an industry point of view and call it big business, and call it progress. And a lot of judges rule for it and the common man does not always have much say in it.
>
> **As far as the home goes--my home is 12 years old--what the blast damage did not mess up…the flooding affected my land, and I probably couldn't sell my home now. I probably wouldn't get anything for it now. We live in fear. The whole hollow is in a state of anxiety now every time it storms**. We've learned that they've been permitted to start another strip mine on the other side of the hollow, so now we are going to have it behind us and in front of us.
>
> The way we gauge it is that if the pond (sediment pond below a valley fill) starts to overrun into some spillways we know that it is only a matter of time that the little streams will be full in the hollow. So different ones of us go up and just check it regularly, even in the middle of the night some of us check it.
>
> **We've lost two: 34-year-old woman, and a 15-year-old boy, stepping into their yard.** The little ditch in front of their yard that normally carried off a little bit of road water had washed out to the extent that they did not realize that the ditch had washed out. We did

10-2-2

not find them until the next day--right in front of her home. (Ed. Note: **Flood waters gushing off a valley fill killed these two people.**)

I always like to say that every law that has been written on safety was signed with someone's blood, 'cause its always been through accidents that there's any improvements in our laws. Apparently the lawmakers in the state are swayed by lobbyists and special interest groups. They come in and make big political contributions to candidates. Its corruption at its highest level, that's what you'd have to call it. The common man, the working man, is not able to get out and go to the statehouse to all these meetings and try to lobby, because we are out trying to provide for our families. And these special interest groups come in and throw a little money around and they pretty well get whatever they want and it angers us--the working class. We elect people into office who make us all kinds of promises.

I would like to see enforcement of the existing laws, and as we learn of new problems for the law, to develop new laws and enforce them. If they continue to wash away and flood everywhere there's not going to be any people living in any of these hollows. West Virginia is going to become one giant strip mine. 10-2-2

Any time you come in and you destroy a stream and the fish in that stream and the animals in the mountains you're affecting God's creation. And I don't like to see anything come in and do that. And not only is it affecting the animals, it's affecting God's people.

If a common guy like myself goes out there and throws anything in the creek, DEP will fine me severely for it. But a big corporation can come in and bury miles of streams and they are committed to doing that. And it bothers me that the same law that holds me won't hold the coal companies.

As MTR assaults the basics that sustain life—water, land and even the air (see blasting, coal dust), so it assaults the basics that sustain the Appalachian culture. The EIS recommendations must accurately reflect these effects and must include recommendations for actions that will relieve and eliminate the negative social and cultural impacts of mountaintop removal / valley fill coal mining.

Blasting

In section II.A.6 of the DEIS, the federal government asserts:

> The regulatory review and study conclusions confirmed that existing regulatory controls provide adequate protections from coal-mining related blasting impacts on public safety and structures including wells.
>
> Findings further indicate the existing regulatory programs are intended to ensure public safety and prevent damage rather than eliminate nuisances from coal mine blasting activities.
>
> Some blasting within legal limits may still constitute a nuisance to people in the general area. As with all nuisances, the affected persons may have legal recourse regarding blasting nuisances through civil action.

> Consequently, blasting is not considered a 'significant issue' and no actions are considered in this EIS.

Perhaps blasting is "not considered a significant issue" to someone living outside the areas where mountaintop removal is occurring. But, to residents who live in the near MTR operations, blasting is a highly significant issue. Most would probably consider the above quoted statements from the DEIS to be absurd and insulting. Residents look to regulatory agencies to take actions that will protect their lives, their quality of life, their health, their homes and their water supply. Coal companies should obey the law and the government should do its job in enforcing coal mining laws; residents should not be forced to take on the expense and burden of hiring attorneys to protect themselves and their property from the blasting associated with MTR.

Note that in the above paragraphs the DEIS carefully talks about "blasting within legal limits." Of course, many citizens believe that much blasting occurs outside legal limits. Even for MTR-blasts that are within legal limits, many citizen complaints to the West Virginia Department of Environmental Protection (WVDEP) and the corresponding Kentucky agency would suggest that these blasts affect lives and property at levels that far exceed the "nuisance" level. *Please refer to the attached document listing recent MTR-related blasting complaints made to the WVDEP.* Remember, the blasts that coal companies set off for their MTR operations can be anywhere from ten to 100 times the force of the blast that cracked open the Oklahoma City Federal Building, killing 168 people. People living as far away as 12 miles from MTR sites have called in complaints about MTR-related blasting to WV DEP. Many coalfield residents keep very detailed logs of the blasts that shake their homes. Citizens have reported to environmental groups that they feel like their complaints about blasting to officials are not taken seriously. Some believe the DEP maintains a "chronic complainers" list and tends to discount their calls. We suggest that the EIS include several samples of these citizen logs. We also suggest that the DEP's entire database on blasting complaints from citizens be included in the EIS.

In early 2003 author Dennis Burke e-mailed: "Approximately 2,500 tons of high explosives are used against the mountains of West Virginia and Kentucky each work day. Every four days, therefore, more explosives are used against Appalachia's hills than were used by the US military in the entire Afghanistan bombing campaign. Every day in Appalachia, the blasting is the equivalent of 1,000 Oklahoma City bombings." No wonder coalfield residents are saying they feel like they are being terrorized.!

Citizens who experience these blasts obviously know that existing regulatory controls DO NOT provide adequate protections from coal-mining-related blasting for public safety and structures, including water wells. Nor do the existing regulatory programs prevent damages from MTR-blasting:

- For example, near Van in Boone County, W. Va. one family's house insurance will not be renewed because MTR-related blasting destroyed the foundation of the family's home to the point the home has been condemned. *See the picture of this crumbled foundation in the "Photos of Surface Mining Blasting Effects" attachment.* Note that WVDEP inspectors refused to admit that MTR-blasting caused the damage. The family knows the truth. The EIS should list all people who can no longer obtain insurance from their homes due to blasting damages or potential blasting damages. 16-3-2

- Numerous residents have publicly stated that they have either lost their well-water or had their well water become unpotable after MTR-related blasting began shaking their homes. "Insignificant"? Hardly! The EIS should document these losses and include an analysis of the short-term and long-term costs of water replacement efforts for individual families, communities and the state.
- Numerous residents have stated publicly that MTR-related blasting has cracked their foundations, cracked walls and ceilings, rattled windows, knocked doors out of plumb, dashed decorative items off walls and onto floors, etc. The EIS should not dismiss these damages as "insignificant"!
- Residents have complained that rock has been blasted off MTR sites, crashing through their roofs and into rooms, or landing in yards where children play and adults garden, or upon roads where people drive. There is a photo circulating of one of these rocks that is about as big as a compact car! "Insignificant"? Hardly!
- People have been evacuated from their homes after "fly rock" destroyed a neighbor's home. "Insignificant"? Hardly!
- The value of people's homes has dramatically deceased as MTR-related blasts have weakened the structures, and/or as potential homebuyers refuse to move into areas where blasting is occurring. "Insignificant"? Hardly!

Significantly, these regulations and programs are NOT protecting people's health and from impacts related to MTR-blasting, including the health effects from:

- The rock dust and chemical-laden dust (the blasts are created by ammonium nitrate and fuel oil, coupled with emulsifiers, blasting caps and other products) that the blasts launch into the air.
- The cumulative physiological effects of the blasting noise—even when a warning siren prepares residents for the upcoming blast, each and every blast still makes a person's heart jump, pulse race and stomach knot up.
- The physiological and psychological effects of the worry residents feel from the blasts, which include wondering if their homes' foundations can take the blasts, wondering if the can afford the costs of repairing damage from the blasts, wondering if they should bother repairing homes as the blasts continue and fear for personal safety.
- The physiological and psychological effects of the fear residents feel that arises from the blast, which include fear of bodily harm for their families and fear for their future health; for example, people fear the rock dust might cause silicosis (silica is found in much of the rock strata).
- Some have likened the ongoing fear and related stress to post-traumatic-stress disorder.
- Sedentary lifestyles—parents have said they keep their children from playing outside for fear that fly rock (or boulder!) may rain down upon them.

News stories document some of the above-listed effects of MTR-related blasting. For instance, the August 15, 2002 edition of the Louisville *Courier Journal* carried a story by Alan Maimon, "Boulder from strip mine rips through Pike home; Dangling rocks threaten other residents in hollow." Excerpts from that article:

16-3-2

A strip-mine blast in Pike County this week sent an 11foot boulder over a hillside, crushing a mobile home. Four other homes were evacuated by state mining regulators because massive rocks were dangling from a hill above them.

While no one was injured in the remote hollow near Varney, Jerry Pinson, 44, said his life won't be the same for a while.

Pinson, a railroad worker, was shopping when the boulder, blown from a Lodestar Energy strip mine, crashed through his mobile home nearly 1,000 feet down a hillside from the blasting zone.

The "fly rock" event comes a year after state regulators vowed to crack down on companies whose blasting practices allow rocks and other debris to fly off sites that are being cleared for strip mining. As a result of Monday's incident, regulators say they plan to take additional measures to fix the problem.

"My house is tore up, and I don't know what to do," Pinson said. "It didn't even occur to me that something like this could happen."

Lodestar, based in Lexington, has been issued a notice of noncompliance and ordered to stop blasting at the site until the state approves a new blasting plan, said Kerry Holt, a spokeswoman for the Kentucky Cabinet for Natural Resources and Environmental Protection.

This is Lodestar's second fly rock violation since January 2001. In the earlier incident, which occurred at a different strip mine in Pike County, no one was injured but another mobile home was leveled. The company was assessed the maximum fine of $5,000.

16-3-2

State regulations prohibit fly rock -- the debris forced into the air by explosions set off to expose underlying coal -- from leaving the property covered by a mining operation's permit.

Mike Francisco, Lodestar president, didn't return telephone calls seeking comment.

As workers tried to remove the boulders hanging precariously from the hillside late yesterday afternoon, Pinson was joined by several neighbors at a Pikeville motel.

Pinson said he had grown accustomed to the blasting that took place on the hillside above his home for about two years and thought of it as only a minor nuisance that caused dishes and pictures to rattle.

"I've lived there my whole life and never saw any fly rock," Pinson said.

But when he returned from shopping, Pinson found his home in ruins. Stunned, he sifted through the rubble for a few articles of clothing and left for the motel.

Derrick Scott, an officer with the Johns Creek Volunteer Fire Department, which first responded to the accident, said Pinson was lucky he wasn't home when the boulder came crashing down. "He definitely could have been killed," Scott said.

State inspectors, who were trying to both secure the area and conduct an investigation, said they were not sure when the residents would be able to return home.

"It's still a dangerous situation," said Jeff Taylor, a supervisor with the Kentucky Department for Surface Mining Reclamation and Enforcement. "Nobody can go back until the area's been stabilized."

Carl Campbell, commissioner of the state Department for Surface Mining, said the incident has convinced him to give several inspectors the fulltime responsibility of monitoring blasting practices at strip-mine sites.

After a spate of fly-rock incidents in the first half of last year, Campbell ordered the department's nearly 120 inspectors to take additional training on dangerous blasting methods, but no inspectors had blasting issues as their sole responsibility.

"I feel like no matter what I do there will be some, but we have to do all we can to reduce them," Campbell said.

The Associated Press reported on the same event:

Jerry Pinson, who lived in the mobile home, was shopping when the boulder crashed through the bedroom area of the mobile home.

His neighbor, Melissa Logan, said she heard a blast that was louder than usual. "Just a few seconds after that was the big crash," she said. "And I looked out my window and saw that. I was just amazed. I was shocked."

Logan said the incident has shaken everyone living near the mine site.

"I'm just really scared about my kids," she said. "We're all the time outside playing, and I'm afraid it could happen here, wipe my house out."

16-3-2

On April 15, 2003, in an article headlined "Miner who resigned settles suit" which appeared in the Lexington Herald Leader, Roger Alford of the Associated Press reported:

An Eastern Kentucky coal miner who resigned rather than detonate blasts that could have bombarded homes with rocks will receive $142,500 from his former employer.

Oat Marshall, who is being heralded as a hero by some coalfield residents, claimed in a lawsuit that he refused to buckle under pressure to violate state blasting requirements.

The Jackson man had said he feared setting off the blasts might have injured people or damaged property in the Letcher County community of Deane. He couldn't be reached for comment yesterday.

Marshall, a blasting supervisor, resigned in August 2001 and filed a lawsuit in November 2001 against El Dorado Chemical Co. and Consol of Kentucky, claiming that by pressuring him to violate state requirements the companies had essentially forced him from his job. El Dorado was a blasting contractor for Consol.

The lawsuit was scheduled for trial today in U.S. District Court in Pikeville.

"My client walked away from a good-paying job based on the fact that they had asked him to do something illegal," said Prestonsburg lawyer Ned Pillersdorf.

Pillersdorf acknowledged yesterday that the settlement had been reached. He also acknowledged the amount of the settlement.

Neither Bruce Cryder, a Lexington attorney representing Consol, nor Randall Scott May, a Hazard attorney representing El Dorado, could be reached for comment yesterday.

16-3-2

Carla Anderson, of Letcher County, said Marshall should be praised.

"It's a good thing, what he did," said Anderson, who says her home has been damaged by blasting in the McRoberts area. "I wish someone would stand up for us in McRoberts."

While the DEIS states that
"...existing regulatory controls provide adequate protection from coal-mining related blasting impacts on public safety and structures" and "the existing regulatory programs are intended to ensure public safety and prevent damage rather than eliminate nuisances from coal mine blasting activities..." the public, as evidenced above, strongly disagrees. The West Virginia Legislative Auditor apparently also disagrees. *Please see the attached West Virginia Legislative Auditor's document from Dec. 2002: "Preliminary Performance Review, The Office of Explosives and Blasting, The Office of Explosives and Blasting Is Not Meeting All Required Mandate."* Just because regulations are in place doesn't mean they are being followed.

From page 5 of the Auditor's document:

The Office of Explosives and Blasting (OEB) was created by Senate Bill 681 during the 1999 session of the 73rd West Virginia legislature. In this report, the legislative Auditor reviewed seven mandates that are outlined for the OEB in Chapter 22, Article 3a of the *Code*. Of the seven mandates reviewed, the Legislative Auditor Concludes that the OEB has met and continues to meet three, 1) implementation of the pre-blast survey process; 2) education, training, examination and certification of blaster; and 3) proposal of legislative rules. However, there are four mandates which are not being met to the extent to which OED was created:

16-3-5

1. **Regulation of Blasting on Surface Mine Operations** - OEB is charge with regulating blasting on all surface mine operations. However, the majority of tasks regulating blasting operations are currently being performed by the Division of Mining and Reclamation, not the OEB.

2. **Setting of Qualifications for Individuals Performing Pre-Blast Surveys** - The OEB has set the qualifications for individuals conducting pre-blast surveys in its legislative rules. However, the primary requirement of these rules is that individual (sic) performing pre-blast surveys undergo training from the OEB. The OEB has no initiated any training for these individuals.

3. **Maintaining and Operating a System to receive Complaints** – The OEB has been in the process of developing a system to receive complaints. However, staffing difficulties has delayed the completion of this system.

4. **Establishing a System for the Investigating of Claims** – There is currently a significant backlog in claims alleging damage, which need resolved.

Significant indeed. Please consider this article by Ken Ward, Jr. in the Aug 3, 2003 edition of the Sunday Gazette-Mail:

Mining study: Blasts not 'significant'
Federal regulators have determined, in their new study on mountaintop removal, that mine blasting is not a "significant issue" in need of additional restrictions.

The federal Office of Surface Mining and other agencies say citizen complaints about blasting probably will continue.

As strip mines have gotten bigger, the agencies said, so have the explosive blasts used on them. At the same time, federal blasting limits have not been updated for 20 years.

But, the agencies said, complaints of property damage by blasting seldom are justified.

Coalfield residents, the agencies said, should hire private lawyers and go to court if they feel blasting near their homes is a nuisance.

"No additional actions to control blasting are warranted at this time," concludes the 5,000-page draft report issued in late May. "As with all nuisances, the affected persons have legal recourse regarding blasting nuisances through civil action."

The OSM, U.S. Environmental Protection Agency, Corps of Engineers and the Fish and Wildlife Service spent 4 1/2 years working on the report.

16-3-2

In December 1998, the agencies agreed in a court settlement to conduct a comprehensive study of mountaintop removal. Their goal, they said at the time, was to consider new rules to "minimize the potential for adverse individual and cumulative impacts of mining operations."

Instead, the Bush administration has proposed a plan to streamline mine permitting. The plan includes no concrete new limits on mountaintop removal.

As part of their study, federal officials abandoned consideration of additional blasting restrictions. They dropped the issue when they narrowed the list of "significant issues" that deserved detailed examination.

In mountaintop removal, coal operators use explosives to blast off entire hilltops and uncover valuable, low-sulfur coal reserves. Leftover rock and dirt is dumped into nearby valleys, burying streams.

Over the past five years, complaints about noise, dust and property damage from blasting have been a consistent concern of citizens at public meetings about mountaintop removal.

In the first national exposé on mountaintop removal, Penny Loeb of U.S. News and World Report focused on the dangers of mine blasting.

"Blasts are made with the same mixture of ammonium nitrate and fertilizer and fuel oil used in the bomb that killed 168 people in Oklahoma City two years ago, but the mining explosions are 10 to 100 times stronger," Loeb wrote in August 1997.

In November 1998, a task force appointed by Gov. Cecil Underwood called for better policing of mine blasting.

A few months later, during the 1999 session, the Legislature created a new Office of Explosives and Blasting within the Department of Environmental Protection.

In their new report, federal officials praise West Virginia for its "leadership role in passing laws and regulations that highlight the importance of mining companies being good corporate neighbors and addressing citizens' blasting concerns."

But in a study released in December 2002, West Virginia's Legislative Auditor found that the DEP blasting office wasn't doing its job.

For example, the audit report said, the office had not yet taken over policing of mine-related blasting from the DEP's Division of Mining and Reclamation. The office had not yet trained anyone to perform pre-blast surveys or set up an in-house database to track blasting complaints.

More importantly, the office reported a backlog of complaints that had not been inspected, let alone resolved. At the time of the audit, 39 of 202 complaints filed with the blasting office had not yet been assigned to an inspector. Fifty-four of the 202 claims were resolved. But of the 148 open claims, only five had been sent to a claims administrator for resolution, the audit found. More than one-third of the open claims were more than a year old, the audit said.

16-3-2

"Citizens with open claims could be living in hazardous conditions due to damage sustained in a blasting incident," the audit concluded. "In addition, the property values of individuals waiting for the resolution of claims could be affected until the damage of the property is corrected." (Note: All emphasis added)

In their new draft study, federal officials quote Underwood's task force finding that "**blast detonations associated with the larger mines have increased from approximately 100,000 pounds to over 1 million pounds of explosives**.

"In addition to more explosives used in blasting, the time periods over which blasting may occur in a general location have changed," the draft study says.

"For example, as the location of a typical contour mine nears a house and passes, **blasting influence may last for weeks or perhaps a few months," it says. "For a large mountaintop removal mine, removing multiple coal seams, the blasting near a home may last years.**"

The new report cites an OSM study of 1,300 blasting complaints nationwide. The study found that "no instances of blast-induced vibration damage were found attributable to the mining operation by the regulatory authority."

Federal rules already outline a variety of restrictions on blasting, the new study says.

Mine workers directly responsible for explosives must be trained and tested. Coal operators must place blasting-schedule announcements in local newspapers. Residents within a half-mile must be mailed a schedule. Mining operators offer pre-blast surveys to residents within a half-mile of the permit area.

"Once blasting is initiated, it must be conducted in a manner to prevent personal injury, damage to public or private property beyond the permit boundary, and adverse impacts to nearby underground mines or surface and groundwater availability outside the permit area," the study says.

The report says these rules "have not changed substantially" since 1983 — before the huge growth in mountaintop-removal mining.

"The agencies recognize that, in spite of enforcement of the existing regulations and implementation of the recent program improvements, blasting concerns/complaints will continue," the study concludes. 16-3-2

"Regulations provide a limited ability to control nuisance impacts," the study says. "The regulations were designed to minimize damage potential and only indirectly address nuisance; however, citizens retain the right to take civil action against a mining operation for nuisance-related concerns.

"There have been court cases in the coalfields where mining activities have been ordered to adjust operational procedures (i.e., above-and- beyond existing regulatory program controls) to reduce public nuisances."

It is flat-out wrong, insulting and disgusting for the DEIS to dismiss blasting impacts as insignificant. We repeat: Coalfield residents should not have to, as a matter of government policy, sue to protect their homes and their health from MTR-related blasting. That's an arrogant, outrageous suggestion! Whoever inserted that preposterous idea into the DEIS is no public servant, but a blatant coal industry apologist. That person ought to be fired from public office and go back to openly working for the coal industry. We also reiterate that coalfield residents have repeatedly expressed concern that regulatory agencies frequently fail to attribute to MTR-related-blasting damages that citizens clearly feel are related to MTR-blasting.

To go deeper into the MTR-related blasting issue, please consider the following information, lifted from Penny Loeb's website, www.wvcoalfield.com (emphasis added): 16-3-5

BLASTING: WHAT'S CAUSING ALL THESE PROBLEMS?

The Surface Mining Control and Reclamation Act was passed to stop coal mines from "damaging the property of citizens...(and) creating hazards dangerous to life and property by degrading the quality of life in local communities."

"It is the purpose of this Act to ...(b) assure that the rights of surface landowners and other persons with a legal interest in the land...are fully protected" and "(m) where ever necessary, exercise the full reach of Federal constitutional powers to insure the protection of the public interest through effective control of surface coal mining operations."

INTRODUCTION

When I picked up my yearly list of complaints from DEP in March 2000, I discovered just as many blasting complaints as in previous years, and at mines I had never heard of. So I decided to find out if there is any difference between the blasts that people complain about and those that they don't.

I collected data on 1,134 blasts at nine mines of various sizes. Of these, 369 had caused problems—such as vibration or noise or dust—for nearby residents. In about three-quarters of the problem blasts, they did differ in some significant way from the blasts that did not cause problems. The differences varied by mine, and not all applied to any one mine. The specifics are discussed under the sections on each mine. But general characteristics include: air blasts over 115 dB, larger shallow binder shots, low-frequency shots, large amounts of explosive per delay, blasts that exceed the scaled-distance formula, cast blasting, two or more shots at the same time, and larger shots closer to homes. 16-3-5

Experts say that other factors can cause blasts to be troublesome as well, including the way explosives are placed in holes, brand of explosive, and misfirings. These could not be determined from the information available.

This analysis is based on a database of the information on the blasting logs. Blasting logs contain two pages of information on each blast, including: time, location, number of holes, amount of explosive per hole, blast design and length of delays between holes. Sometimes there will also be information on ground vibration, air blast levels and frequency from seismograph readings. Some mines are required to seismograph all blasts, while others have been seismographed by DEP after complaints from residents.

I determined which blasts caused problems in two ways. Some resulted in complaints to DEP. Others were noted on lists kept by people living near the mines. In every community except one, I got a list kept by at least one resident.

The regulations say the director can give the public access to the blasting logs. But they don't require copies, so Libby Lindsay (a retired miner and summer intern at the West Virginia Organizing Project) and I had to take laptops to the mines. When we had to sit on boxes and use pails as tables in the guard shack at White Flame (the first mine), we thought we were in for a rough summer. Fortunately, accommodations improved, but varied greatly. Paynter Branch required us to go to a lawyer's office in Charleston and

assigned a young secretary to watch. Pen Coal had a supervisor hand us each blasting log, one by one, and asked for a copy of the data.

For all mines but one, we used the time period of the beginning of 1999 through Spring 2000. The other mine had ceased blasting for part of 1999 so we also looked at older records. We entered every blast that generated a complaint to DEP. We tried to enter at least two full months of blasts during the months when there were the most problems. That way we could compare blasts that were problems to others that were placed nearby at the same time of year. Ideally, we would have tried to gather another 500 blasts, but our time was limited with each mine. We have gone back to as many mines as possible and checked the data.

I have spoken with seven blasting experts, read both the OSM and DEP blasting manuals, reviewed studies and court testimony and have discussed my findings with DEP and officials at the mines. I asked all the mines for a response. Paynter Branch, Bandmill and Mingo Logan did not respond. Pen Coal officials and I are still trying to set a date for an interview.

This study is about both nuisance problems and damage. The law gives citizens the right to enjoyment of their property. Yet, in every community where there is blasting, there are certain shots that cause houses to shudder, items on walls and shelves to shake. The blasts can be very loud or cause a lot of dust. At most mines, these types of blasts only occur about a dozen days out of the month. The others don't bother people.

16-3-5

In fact the Secretary of the Interior stated in the Federal Register, when OSM issued its blasting regulations in 1983, that citizens' health and safety should be protected as to "create the least discomfort." "OSM believes that prevention of excessive noise, especially in populated and residential areas, is within the ambit of 'health and safety or welfare.'"

The coal company officials, and to some extent DEP officials, sometimes dismiss the people who claim problems as "chronic complainers." Sure these people exist. But I am confident that the people from whom I got complaints had legitimate problems and did not exaggerate.

My purpose was not to determine exactly what made those blasts problematic. There is not enough information on the logs for such precise findings, nor do I have the expertise. What I wanted to find out is whether there is enough suggestion of difference to warrant further study.

The mines usually abide by the regulatory limits of 1 inch/second ground movement and 133 dB air blast. Vibration is supposed to be minimized by separating the explosions of each delay by at least 8 ms. Mines usually use a "scaled-distance formula." This limits the amount of explosive per delay period. For example, the limit for a blast 2,600 feet from the closest protected structure is 2,234 pounds per delay period. The closer a mine gets to a house, the less explosive per delay is allowed. The formula does not have to be followed if a seismograph is at the closest house.

When a citizen files a complaint, the DEP inspector, in nearly every case, will write that blasting was within the regulations and go away, leaving angry citizens. They feel as if they are in the Twilight Zone. How can the inspector say blasting is being done properly when their house shakes? Some inspectors have even pinpointed types of blasts that cause problems under these limits, especially air blasts above 115 dB (these are explained in the analysis of each mine below). Yet, DEP and OSM refuse to look beyond these standards.

The regulations are based on research done 15-20 years ago by the Bureau of Mines. None was done in West Virginia, and research was with smaller blasts and partly on a new house built specifically to test blasting. Two recent bodies of research have been developed that refute the accepted limits. (I can supply copies to anyone who wishes).

Sam Kiger, Dean of Engineering at the University of Missouri, was the expert for the Bim blasting case, which was tried in court in Boone County in March 1999. Kiger is an international expert in protecting federal buildings from blasting damage. After examining 6,000 blasting logs, he testified that there is about a 95 percent chance of damage at a vibration limit of .5 inches/second, if you count each of the holes shot (50 on average) as a separate vibration. In the Bim case, he also testified that low-frequency waves (2 Hz-11 Hz) generated by some blasts can be more damaging. The frequencies can match that of a house and amplify the shaking.

Freda Harris, who had a blasting case with a mine in Indiana, gathered many documents during the case and subsequent FOIAs of OSM. She wrote a manual for Citizens Coal Council. One of her most intriguing findings was that there can be "hot spots" in a community where the geography can make blasts worse. She emphasizes that damage and vibrations can feel worse if a house's natural frequency is approximately between 4 Hz and 12 Hz. The above-ground part of the house often vibrates more than the ground outside and the foundation. Yet, the DEP/OSM standard is based on ground vibration.

16-3-5

Most of the blasting studies of the Bureau of Mines were done by the David Siskind. The FOIAs provided much correspondence between Siskind and other experts, some of it quite critical. **A top official of Vibra-Tech, a leader in designing blasting technology, said: "Any criteria...which ignores the frequency of a structure and the frequency content of the ground motion is overly simplistic...Your criteria, as proposed, will neither protect the interest of the citizen and the homeowner, nor will it protect the blaster from alleged damage claims."**

After the Bureau of Mines was shut down by Congress, Siskind became a private consultant. He testified for the coal company that lost the Bim case. The majority of the blasting cases have overturned his studies, and thereby the limits used by DEP and OSM. As he wrote an OSM official on June 17, 1997: "The battles I am now seeing are not 0.5 in/sec versus 1.0 in/sec. Complainants are trying to dismiss all the science as biased, wrong or nonapplicable. For the most part, they are succeeding in ways that pay off."

Interestingly, the DEP "Surface Mine Blasting Study Guide" acknowledges that the response of the human body is greater at lower frequencies: "This explains why people file complaints even when the blasting is conducted at safe (no damage) levels."

The guide recommends seven ways to possibly reduce ground vibration, including: use less explosive per delay, increase the length of delay, detonate the blast away from houses, increase the scaled distance formula. Interestingly, many of the problem blasts violated one of those seven recommendations.
The study guide also notes that blasting complaints will be likely when air blasts exceed 115 dB. It has nine recommendations on how to reduce air blasts, including using enough cover over the explosives in the holes, avoid cloudy days and temperature inversions and avoid open sides in the direction of homes. Again these were often disregarded during problem blasts.

DEP regulations give the Director the power to order mines to reduce blasts to prevent harm. The regulation currently reads: "The director may prohibit blasting on specific areas where it is deemed necessary for the protection of public or private property, or the general welfare and safety of the public."

DEP has tried to strengthen the language in revised regs now before the Legislature: "The director may prohibit blasting or prescribe alternative distance, vibration and air blast limits on specific areas, on a case by case basis, where research shows it is necessary, for the protection of public or private property, or the general welfare and safety of the public."

16-3-5

At DEP's public hearing in August (2000), the industry submitted criticisms, and Mike Mace, director of the new Office of Explosives and Blasting, thinks it might not pass the legislature. Even if it passes, the question is will it ever be used.

Darcy White, assistant chief of the Office of Explosives and Blasting, agrees that blasts can be refined and reduced a bit. She has found that the frequency problem can be eased by lengthening the delay periods between blasts. This would eliminate a lot of the problems. But she sees it as a continual negotiation between inspectors and the mines. **Never, she thinks, will DEP have the authority to order the changes that are needed. The sad thing is that these aren't major changes. Nor would they result in much slowing of production.**

The response of homes can be measured before blasting. Response Spectra Analysis is a mathematical procedure that takes into account the structure's natural forces and the amplitudes and frequencies transmitted by a blast. This requires firing test blasts first. Vibra-Tech's West Virginia office offers this service, which they sometimes use when blasting will be near a hospital or computer operations. One hole is fired for a week, and vibrations measured. Mines don't use it, the Vibra-tech official said. "If the speed limit is 55mph, would you drive 50 mph," he said, explaining that mines only do the legal minimums.

OSM actually considered requiring Response Spectra Analysis, but rejected it in 1983 as too expensive.

The other weakness of the DEP system is that inspectors don't know the scope of the blasting problems. Only a small percentage of the problematic blasts get reported to DEP. Some people don't know who to call or even that DEP exists. **Others give up after being told repeatedly that the blast "was in compliance."** Within two hours, I can find the person(s) in a community keeping lists of the blasts. But there is no DEP policy requiring inspectors to regularly canvass a community for problems with a mine.

From this study, it appears that blasting could be moderated enough to reduce problem blasts by at least 50 percent. With the recent appropriation of additional state and federal money for DEP, the blasting office will hire about a dozen blasting inspectors. If inspectors had a complete record of all the problem blasts at every mine, they could require modifications in the blasting until the problems abate.

Clinton Evans, engineer for an explosives firm in southwestern Virginia, is regarded as one of the leading experts on blasting in the Kentucky, West Virginia and southwestern Virginia area. He has been a blaster since 1976, and his firm supplies powder to Tri-County and advises the mine occasionally. It is also doing the blasting for the Route 10 widening in Man. The firm does blasting at surface mines, though none currently in West Virginia.

He offered many insights on why certain kinds of blasts can cause problems and kinds of improvements that can be made. He agreed that there are things that can be done to make blasting less bothersome. I will explain what he said about some of the most common problems.

16-3-5

Binder shots, which have short holes (generally less than 10-feet deep), frequently result in loud air blasts, which cause complaints. Mines use these when they have to shoot a narrow layer of overburden to reach coal. The top coal layer is usually fairly deep (50-100 feet below the top of the mountain). Then there can be a few coal seams close together with just a little cover. The holes are so short that there is no room for adequate cover to absorb the sound. The best way to cope is to use gravel to cover the explosive instead of the drill cuttings normally used. His firm uses gravel for binder shots on construction jobs. But it would be practically impossible for coal companies to absorb that cost, he said. Barry Doss, the chief engineer for West Virginia operations for Addington, said that mines tend to use binder shots with too many holes because they are so easy to drill. The data shows that smaller binder shots generally don't cause problems.

Evans said that they concentrate much more on the effects of the low frequencies than on per particle velocity. The per-particle reading almost never goes higher than .3 inches, well below the regulatory limit of 1 inch per second. However, just as Sam Kiger and Freda Harris determined, the low frequencies are bothersome. "We try to change to a higher frequency so don't get as high a jolt," he explained. DEP recognizes that lengthening the delays can raise the frequency. However, Evans also tries decreasing the burden a foot at a time, and then possibly the spacing as well.

Air blasts that exceed 115 dB frequently cause complaints. He said the best time to shoot when there is a potential for air blast is from noon until 2 p.m. because temperature

inversions and clouds are least likely. However, a lot of mines like to shoot at shift changes around 4 p.m. Another way to reduce air blasts is to slow down the delays down the rows. The data shows at least half the mines use 9ms delays down the rows. He said those short delays can actually end up, depending on the design of the blast, being less than the regulatory limit of 8ms between delays. Some mines use these very quick row shots to cast the overburden. This saves a lot of time and reduces the cost of moving the overburden. The explosion just tosses the material away from the coal.

There needs to be better training of both blasters and inspectors, he said. "One of the biggest problems in the industry," he said, "Is that we have a lot of explosive companies with well-trained people, but more intensive training of the blasters at the sites needs to be done." There will be times with difficult blasts, he said, that blasters will need advice from explosives companies. However, their resources are stretched thin, as well. Larger mines will generally get more attention just because they do more blasting.

He recommends that at least some of the new blasting inspectors at DEP have worked as blasters. He also advises aggressive public outreach, which is what his company does when they start blasting in a new area.

Analysis of nine mines

COWEN Evergreen (Addington)

"It feels like an earthquake," Bowman said. **Sometimes, the blasts have shaken the deer heads off the wall, cracked the windows and made the house shift so doors won't close properly. The water has drained out of the two ponds behind his house, and he can't keep enough in the ponds for his pet fish.**

Dust from the blasting filled the long valley three times this summer: once in June, once in July and again on August 2. One day it was so bad that Bowman couldn't see to drive down the road.

Roger Hollandsworth agrees that the blasting is bad. Hollandsworth has lived in his tidy home for 34 years. The yard is filled with flowers, Rose of Sharon and other flowering trees and shrubs. His mother lives just up the road, a bit closer to the mine.

Like the Bowmans, his mother keeps a careful record of the blasts. After a couple years of problems, the mine now calls her and a few other nearby residents when a blast is about to go off. But that doesn't stop the blasts from being annoying. She only writes down the bad blasts, with notations like: "Very bad-loud-shook house."

"They are hurting us down here," Hollandsworth said. During the summer, someone put up a sign: "Blasting next six miles. "It will blow you off the highway."

For the most part, the residents have dealt mainly with the mine management. In one case early in 2000, an improperly designed blast blew the windows out at the Falls' garage, which is usually the closest protected structure. Mr. Falls said that some of the holes of

16-3-5

one blast had not gone off. Then when a new blast was set off nearby, the unfired holes went off as well. This was not reported to DEP, however.

When the DEP inspector is called, he does a thorough inspection. Most of the time, he accompanies his findings with a one-page explanation of blasting. Each time, he writes: "Air blasts often feel like ground vibrations and are similar to the sonic booms generated by jets breaking the sound barrier. Air blasts over 115dB are known to be irritating to persons in the area and often result in citizen complaints." Most of the blasts at this mine for which there are decibel readings do exceed 115 dB. In fact, Evergreen got a violation in April 8, 1999 when it blasted 139 dB, well over the 133 dB limit.

(Note: I spoke with Roger Hollandsworth in early March 2001. He said the blasting is much, much better now. There are still some loud blasts, but there haven't been the fumes or the shaking of the past few years. He said inspector Keith Evans is at the mine two or three days a week. He has them adjust the blasts and shoot earlier in the day. Roger and Keith visit regularly so that Keith knows how the blasts are impacting the community. They seem to have developed a plan that could be a model for other communities.)

Of the 111 blasts analyzed, 47 generated problems for residents. A few were complaints filed with DEP, while the rest were noted by Mrs. Hollandsworth or the Bowmans.

Most of the complaints stemmed from two factors: Blasts that exceeded the scaled-distance formula or came close to it. And the larger, shallow binder shots.

This mine most frequently exceeded the permissible limits for explosives per delay. As the inspector noted, regulations allow this since the mine placed a seismograph at the nearest protected structure, usually the Falls or the Hughes houses. Mr. Falls said that he was protected from the blasts by the mountain, unlike his neighbors. **The mine never told him, he said, that it could have larger than allowed blasts because the seismograph was at his house.**

All nine blasts that exceeded the limit caused complaints. Six triggered a seismograph, with air blasts measuring between 124 dB and 131 dB.

Of the 12 blasts that were more than 50 percent of the permitted amount per delay, eight generated complaints.

The other factor that appeared to cause a lot of complaints were the larger binder shots. Because these have holes that usually aren't more than 10 feet deep, they don't shoot a lot of explosive. But the shortness of the holes often makes them generate more vibration and larger air blasts. It is difficult to design an efficient blast with such shallow holes. The adverse impacts could be reduced with holes of smaller diameter. But I have not seen any mines that use 6-inch diameter holes. Usually the holes are either 7 7/8 or 9 inches. The mines say it would be too expensive to buy smaller drills.

A blasting supervisor for Evergreen said that the mine shoots a lot of binder shots because the coal lies close to the surface in numerous areas. Of the 35 shots less than 10

16-3-5

feet deep, 12 generated complaints. Half of those were over 9,000 pounds. Of the other 23 binder shots that did not cause problems, only two were more than 9,000 pounds.

This mine and Mingo-Logan and Princess Beverly were the three that shot two or more times nearly at the same minute. There were 19 shots within minutes of each other. Twelve of those combined shots caused complaints. The ones that did not were less than 10,000 pounds or a small fraction of the permitted amount per delay.

The few other troublesome blasts that were not explained by these factors had notations on them about unusual design or problems with the blast.

I spoke with Barry Doss, chief engineer for Addington's West Virginia mines. He said that the major reason for the high air blasts is that this area has a lot of cloudy days. When clouds are low, the sound waves will bounce back to the ground at wider angles, which is why air blasts can sometimes be heard two miles away. He doesn't know what can be done about the clouds. But he said air blasts can be lowered by reducing the amount of explosives per hole and by increasing stemming (cover over the explosives in the hole).

Evergreen uses a dragline, which is why its blasts sometimes exceed scaled-distance limits and why it uses larger holes than the other mines. The dragline has to have a lot of rock to keep working steadily, he said.

I asked him about the shots that generated a lot of dust and smoke. If the smoke was yellow and smelled, the holes may have been wet, he explained. If a blast has to sit overnight before being detonated water can get into the holes. The best way to avoid problems is to load the holes and detonate them immediately.

Both Evergreen and Princess Beverly tend to shoot two or more blasts at the same time because it is more economical. This way they only have to clear the area once, and generally they do the simultaneous blasts at the afternoon shift change.

The men who design and shoot the blasts don't get to go to seminars, he said. So they rely on the expertise of the explosives company when they have problems. "There are always minor adjustments can be made because blasting more of an art than science," he said.

CYCLONE Paynter Branch Mining

"My husband works for the mines, but they can't tear up my house," Barbara Jeffries of Cyclone, interview August 2000.

Like Tri-County in Dingess, this is a small mine with small blasts. Yet it was frequently within 1,500 feet of the community and caused a lot of problems. The mine stretched for about a mile, its perimeter following Route 10 through Cyclone, never more than 2,000 feet away up on the mountain.

16-3-5

The complaints about blasting began to come into DEP towards the end of 1997. **By 1999 though, people were tired of complaining, since the problems didn't seem to be easing.** Still they filed a dozen between March 1999 and February 2000.

"Blasting on 6-24-99 at 4:15 p.m. was extremely loud and shook her house so hard that it scared her visiting grandson who was inside of the house at the time of the blast," wrote the DEP inspector about a complaint from Barbara Jeffries. Her neighbor, David Robertson, complained on March 23, 1999: "Blasting from Paynter Branch Mining has been shaking the complainant's residence and on 3-22-99 at approximately 4 p.m. a blast occurred that 'shook' the dwelling hard and caused items to fall off of shelves in the den of the dwelling."

Dust from the mines was a problem, partly because the fairly large community was so close to the mine. Though the mine is not visible from the road, its location on the edge of the mountain was similar to the Dal-Tex mine in Blair. This allowed the **dust to float out over the houses.**

The blast on Aug. 25, 1999 was particularly dusty and generated two complaints. David Robertson took photos that clearly showed the dust. The DEP inspector wrote: "**Paynter Branch Mining Inc. has agreed to wash Mr. Robertson's house as he requested after mining has progressed away from the location of the house." The mine agreed to wash other houses as well. Yet more than a year later, no houses have been washed.**

Unfortunately, the one person who was keeping a log of the blasts threw it out because the mining was ending and she saw no use for her records. This is the one mine, where the complaints are based solely on complaints filed with DEP.

However, this mine was one of two that regularly seismographed the blasts. It did seem that the machine was close to one group of homes and not to another. The blasts were loud enough to trigger the seismograph 30 of the 35 times that the closest structures were houses 57, 88 or 91 (all near the Jeffries and Roberts). It did not trigger when the blast was closest to house 152.

Interestingly, all but five of the 35 air blasts recorded were over 115dB. Several DEP inspectors have said they found complaints start coming in when air blasts are over 115 dB.

The DEP inspector was quite thorough. After one of the first complaints in late 1997, he wrote a letter with his findings. This time, he found that the mine was using the wrong closest structure. The log said it was 1,800 feet away when it was actually only 1,400 feet. This reduced the allowable amount of explosive per delay from 1,070 pounds per delay to 648 pounds per delay. Then the blaster timed the shot incorrectly, causing 1,200 pounds to detonate instead of the 648 pounds.

WHAT THE DATA SHOWS

We reviewed 103 blasts, of which nine generated complaints to DEP. Without a more complete list of problem blasts, it is somewhat difficult to determine what is different

16-3-5

about the blasts that did cause problems. However, the presence of seismograph data is helpful.

Location of the blast appeared to be one factor. The complaints only came when the blasts were in just seven of the 80 grids where blasting took place. The blasting logs require mines to include the grid numbers. Grids look like a graph paper and the letters and numbers generally start in the top corner at the left, just like in a spreadsheet. So the grid will read J-19 or NN-46. All the grids where bothersome blasts occurred were towards the center of the mine: J-19 through QQ-41.

As noted above, the air blasts were particularly high here. The highest (132dB) occurred on the day that Barbara Jeffries said the house shook so much it scared her grandson.

Interestingly, the majority of blasts that caused complaints were detonated in the direction of the nearest protected structure, even though DEP recommends detonating away from homes in order to reduce vibration.

The data on the frequencies of the blasts is also enlightening. The Bureau of Mines has found that frequencies between 4 and 11 Hz can magnify the shaking feelings if the house is responsive to the frequency of the blast. Most of the frequencies from these blasts were between 7 Hz and 11 Hz.

DINGESS Tri-County Coal

16-3-5

Perhaps the smallest of the nine, this mine stretches along the ridges of the mountains that hug the northeast side of County Route 3 through Dingess. Two local men bought this permit from Pen Coal a couple of years ago and are operating a contour mine without any valley fills.

Blasting problems have been associated with the large, mountaintop removal jobs where blasts can be 50,000 pounds to 250,000 pounds and even as much as 1 million pounds. Tri-County refutes that theory and shows the complexities of blasting. **The largest blast we recorded was 43,942 pounds, with nearly half less than 10,000 pounds.**

Stanley Marcum, a disabled miner in his 50s, lives where he was born, in a two-story house on the banks of the West Fork of Twelvepole Creek. Steel blue, the house has been carefully restored. Birds gather at the feeders near the creek bank, and Marcum built a garage a few years ago. His wife has a beauty parlor in the rear of the house and is home most of the day.

When Pen Coal was blasting about half a mile down the road three years ago, Marcum did complain to DEP a few times even though his home wasn't among the closest. Last year and this past winter, his house was frequently just about the closest to Tri-County. Blasting was occurring on the ridges lying to the northeast, across the creek and road from his house. Only now, he was reluctant to complain because he had gone to school with one of the owners.

Still, his wife kept careful track of the blasts, noting down the ones that were the most bothersome. Marcum believes the cracks in the foundation have grown worse because of the blasting. He showed me how the bottom wall of his living room bows outward into the room. Whether these irregularities were caused by blasting will be up to an engineer. What is clear, though, is that the blasting is annoying and sometimes scary. The house just shakes and shakes, according to Marcum and his son.

The Marcum family has been working in the mines for decades. Stanley worked as a deep miner at Marrowbone for more than 20 years. In the early 1990s, Marrowbone ousted the UMWA, but Marcum stayed on. He had the misfortune to be in a mine fall, breaking his back in several places. Though he is fortunate to be able to walk, he can't go back to work. The mine paid the medical bills for his accident, but he is now like many disabled miners in their 50s and early 60s: without medical coverage until he reaches retirement age. Marcum's son drove a coal truck at Pen Coal, but recently switched to driving for Marrowbone.

A new permit for Marrowbone's mountaintop mine is approaching Marcum's house from the southwest. The pond for the valley fill will be about 300 feet from his backyard. "I was born here," he said, "But if they bought me out, I would leave."

The Marcums aren't the only ones who were bothered by the blasts, either. Roger Meade and his wife live across the street. Dishes in their house have been knocked off shelves and broken.

16-3-5

WHAT THE DATA SHOWS

The most obvious reason for these blasting problems would be because the blasting was very close to the homes.

Of the 130 blasts we entered in the database, Mrs. Marcum noted 27 were especially bothersome. These blasts were either closer, deeper, had a larger number of holes, a larger amount of powder per delay or shorter delays.

12 of those were 1000 feet from the closest house. There were another nine blasts that were also within 1000 feet. But the ones that caused problems had significant differences with all but one of the less offensive blasts. Two were nearly twice as deep 59 and 68 feet, compared to 30 feet). Seven had more holes. Seven had fewer delays (17ms and 42ms, compared to 17ms, 42ms and 109ms).

The other 15 troublesome blasts were located in just 10 other grids. (Blasting was done in 26 different grids). In four of those grids, nearly every blast was bothersome.

In the other grids, the bothersome blasts differed in significant ways. The most obvious were the delay timing and delay designs.

The amount shot per delay ranged from two at 1,394 pounds to one at 10 pounds. There were a number of blasts between 255 pounds and 782 pounds. Interestingly, of the 10 blasts at 697 pounds, only three were bothersome. All three were in the two of the 10 grids closer to the Marcums.

It would seem that blasting at this mine would have benefited from closer attention from DEP. Numerous blasts were listed on the log as 1,000 feet from the closest protected structure. However, the name of the owner was never given as it is at most other mines. **It is quite possible that some of the blasts were actually within 1,000 feet of homes and would have required site-specific blasting plans.**

There were no complaints up to March 2000. A few complaints were filed after that. **But because there had been no previous complaints, it appears that DEP did not pay close attention to the blasting.**

This is the one mine where management seemed to genuinely want to try to lessen the impacts of the blasting. In fact, the mine manager asked me to tell him if I found any reason why the people were having problems with the blasts.

After the mine received complaints from people soon after starting up early in 1999, the powder company studied the vibration patterns and recommended altering the frequencies. It appears that the delays were lengthened on many, but not all, of the blasts. Unlike other mines, the blasting logs sometimes seemed as if they were carbon copies. As we were inputting, we sometimes felt like the blast from the previous day had just been copied onto that day's log. Perhaps, they did shoot nearly identical blasts on consecutive days, but it seemed odd.

Bill Dye, the mine manager, said the complaints in April-June of this year resulted from an unusual rock formation. The blasters unexpectedly encountered fractures as large as 6 inches in the rock. They had to increase the powder in order to try to break up the rocks, some as large as houses. But the fractures and increased amount of powder made for larger air blasts, he explained. There was no way, that he knew, to discover the fractures before shooting. He said they tried to tell residents what was happening.

I asked him whether the mine could afford to shoot less per delay. He said that they tried to break the shots up into two or three smaller groups when they are close to houses. However, he said, that it would probably cost too much in time delays to do that with larger shots further away from the community. They do try to do preline, breakup and production shots, and have minimized the shots as much as possible.

He said that community residents are nderstanding if they are called ahead of time. However, it would be difficult, he said, for a mine or DEP to survey a community to discover the full extent of the problems.

FOSTER Elk Run Massey

Dickie Judy could be the poster child for blasting. For six years, he has gone to every level of state and federal agency and governing body. Amazingly, most agree that the blasting from the mine is causing problems. Yet, none wants to order something done.

16-3-5

Dickie Judy builds houses for a living. So when it came time for his dream home, he wanted everything perfect. The location is idyllic, more than 100 acres at the end of Foster Hollow in Boone County, an ample flat lawn, and even a visiting bear. He let the large white colonial settle a year before moving in—only to be greeted with a notice that he needed a pre-blast survey.

The survey was done in September 1994. Another survey was done of Judy's older rental house nearby. Within a few months Judy filed his first of years of complaints. Bill Cook has been the DEP inspector the entire time. After nearly two decades with the forestry department, he had moved over to DEP with an unusual enthusiasm for enforcement. He jumped right in and issued a violation: "failed to prevent damage to private property outside of the permit area: Elk Run Coal Co. must provide a list of repairs that it is willing to make and a time frame for such repairs by Friday 3/24/95."

On March 30, 1995, OSM inspectors Mike Superfesky and Richard Frazier inspected the Judy's two houses along with Bill Cook. About the older house, OSM found: "I totally agree with the WV DEP that it is obvious that the paneling separations in three different rooms of the house was caused by blasting; It is also obvious that the age, type of construction, and type of foundation make this older structure more vulnerable to both air and ground-induced loading. **The dynamic response of non-conventional pier or rock footings and non-conventional floor and wall framing to ground vibration is different from that normally expected in the more conventional system; therefore a larger scaled distance factor is required to insure protection of a non-conventional structure.**"

About the Judy's new house OSM wrote: "has also sustained additional cracking from the time of the pre-blast survey conducted in September, 1994. Currently many of these cracks are considered minor or threshold cracks, particularly the cracks in the room corners and at the intersection of walls and ceilings; however, there are documented changes in the size and number of cracks since blasting commenced. Based on the age and the excellent quality of the design and construction of this house, it is evident that this house can resist greater air or ground-induced loading than the older, non-conventional house. It is also very possible that in addition to air blast, this house is being subjected to low-frequency ground vibration that are near the natural frequency of single family frame structures and particle velocities could be amplified within the structure." And this was happening when the blasting was 5,000 feet away.

DEP inspector Cook issued three violations for blasting, which forced DEP to issue a cessation order. Massey appealed to the Surface Mine Board, which overturned the blasting violations in July 1995.

Next OSM issued a Ten Day Notice on August 8, 1995, saying that Elk Run failed to conduct blasting operations so as to prevent damage to private property outside the permit area. In December 1995, OSM issued a violation and ordered Elk Run to improve its blasting designs. In March 1996, Federal District Court ruled in Elk Run's favor and overturned the OSM order.

16-3-5

Meanwhile Judy had gone to Washington, D.C., to testify before Congress about the harm of cutting OSM's budget, which happened anyway.

Interestingly, his case became a dilemma for OSM's Nationwide Blasting Work Group in early 1996. OSM had found damage at the older house at a vibration of .2 inches/second. Blasting regulations are based on the theory that no damage will occur below 1 inch/second. Since the Work Group has not issued a final report, the resolution is a mystery.

OSM made another inspection on April 2, 1997. After finding two air blast readings of 128dB, the inspector recommended more stemming (cover over the explosives in the holes) and smaller diameter holes. It appears that holes were reduced from 9 inches in diameter to 7 and 7/8 inches only about a third of the time.

In the summer of 1998, Dickie Judy hosted a tour of the legislative committee studying blasting. He also lobbied the legislature for better laws.

After a series of particularly hard blasts last Fall, (then) DEP Director Mike Castle issued an order that air blasts should be reduced. However, Massey threatened to sue, and DEP backed off the order. Instead, Darcy White and Jim Miller of the Office of Explosives and Blasting convinced the mine to submit a revised blasting plan, which included longer delays and shots in sections. In March 2000, the mine got a new manager, Mike Snelling. He said he could minimize the complaints, but not eliminate them. However, from the Spring through November, the blasting and mining was being done in an area of the mine far away from the Judy's home. Inspector Bill Cook said they won't be able to determine how much the new blasting plan has helped until the blasting comes closer to the homes in a few months.

Most recently, the engineering expert for Bailey & Glasser found that Judy's home has $5,000 in damage from blasting. However, it is too small an amount for them to take on as a lawsuit. **Mike Mace, director of DEP's Office of Explosives and Blasting, refused to order the mine to fix the damage based on the engineer's finding.**

Dickie Judy doesn't know where to turn next.

WHAT THE DATA SHOWS

We examined 88 blasts of which 23 caused problems. First, this mine has the biggest blasts. Of the 88 blasts, 37 were more than 100,000 pounds. Evergreen, the next largest, had 20 of 111 over 100,000 pounds. Granted, large blasts can be barely noticeable if properly designed. **But the Judys repeatedly characterize the blasts as feeling like they are being blown off the earth.**

More than half – 42 blasts – were more than 1,200 pounds per delay, the only mine to shoot such a high percentage. Regulations permit such large shots because the blasting was usually between 3,000 and 9,000 feet of the Judy's house. However, when the large amounts were shot within 4,600 feet, there was usually a problem. Those blasts include: 1,954 lbs/delay at 3,200 feet, 2,858 lbs./delay at 3,500 feet and 5,162 lbs./delay at 4,300 feet.

16-3-5

In fact, 17 of the 23 problem blasts shot more than 1,900 pounds per delay. Four of the other 6 problem shots were binder shots.

Binder shots were a problem at this mine, as at all the others where they are used. This time, only about half the binder shots caused problems. All those that did cause problems were 9 inches in diameter. Several of the less bothersome used both 9-inch and 7 7/8-inch holes.

KISTLER Bandmill Massey, formerly Pittson

For more than three years, Everett Dickerson of Kistler kept careful records of the blasts at the Pittson mine on the mine above his house. When his neighbors started to have blasting problems a few blocks away, he showed them how to make lists, too.

But now Dickerson has given up. The lists and complaints didn't do much good. The only thing that might help now, he says, would be a lawyer.

This mine, which was owned by Pittson until mid-1998, stretches along the top of the mountain on the north side of Route 10, reaching from Taplin to Kistler. The mine ceased operation for about a year while it was being sold to a subsidiary of A.T. Massey but reopened early in 1999.

About 110 houses in Kistler and Taplin are within half a mile of the blasting. Kistler is a tight little community with houses close together on narrow streets. Several residents described the blast as reverberating through the neighborhood.

"Blast today at 8:36a.m. shook trailer and scared everyone in the neighborhood," Cornella Morgan told the DEP inspector on April 23, 1998.

Larry Conn, a teacher, told DEP that the blast shook their house on March 6, 1998. "**Very upset that blasting seems unregulated.**"

The DEP inspector was not as assiduous as those for Evergreen and Paynter Branch. But his investigation of the blasting complaints did shed some light on why particular blasts caused problems. When Larry Bragg complained that a blast on Aug. 21, 1999, "shook his house really bad," the inspector noted that the blast included "pre-split holes, which are usually very loud." A number of blasts examined were a combination of pre-split and production blasts.

Interestingly, a month before that problematic blast on Aug. 21, the inspector had recommended that the mine "use more delays in pre-split shots to cut down noise levels and reduce number of complaints." It doesn't appear that the delays were changed.

Larry Conn reported that the blast on March 10, 1999, shook his house. The inspector wrote that the blast was "on a point with two open sides and weather was cloudy with light snow contributing to increased air blast."

16-3-5

As for the blast on April 23, 1998 that scared everyone, the inspector found it was "parts of three holes un-detonated in previous blast. Would have been very loud."

WHAT THE DATA SHOWS
We examined 182 blasts, of which 51 caused problems. This mine was different from the others because we examined blasts in 1997 and 1998 as well as 1999 and 2000. This is because the mine did not operate for part of 1999, and people had given up keeping complete records by 2000. We also had to use a different kind of blasting log, with different information for the 1997 and 1998 blasts. Mine officials could only find the records kept by the blasting contractor, but not the official logs that were kept when the mine had a different owner.

There seemed to be four factors associated with the problem blasts: location, amount of powder per delay, combined pre-split and production, and unusual shots.

This mine had the third largest blasts, after Elk Run and Evergreen. When the blasts were the closest to houses (3,600 feet), the problems came from those of more than 900 pounds per delay and in just two of the grids.

With the older blasts, the problem ones usually were again in just a dozen grids and had higher powder factors (more than 1 and as high as 1.5). There were a few other blasts with high powder factors in those grids. But they were mostly just production shots, and did not pre-split at the same time.

As the DEP inspector noted, pre-split shots did prove to be troublesome most of the time. Of the 29 combined production and pre-split shots among the 100 older shots, 22 caused problems.

AMEAGLE/COLCORD/DOROTHY Princess Beverly (Addington)

When you watch a blast go off from the top of Kayford Mountain, it seems like it is in the middle of nowhere. And the blasting logs note that for nearly every blast Stanley Park is the closest protected structure (usually 2,700 to 3,900 feet away). This is the cemetery and campground atop Kayford that was preserved by Larry Gibson.

But the map shows that the southern end of the mine follows Route 1 as it winds along from Whiteseville to Dorothy to Ameagle. Nearly all the blasts take place southwest and south of Stanley Park, putting them less than a mile from Route 1. And it was the Litos brothers, George and Manuel, who kept lists of the blasts that seemed bothersome at their store along Route 1 between Colcord and Ameagle. They even filed a complaint on Sept. 16, 1999 that the blasts vibrated their windows.

A couple dozen other complaints have been filed about the blasting. But some people didn't know which mine was blasting, and didn't know how to contact DEP.

The complaint investigations were only cursory. The only significant finding by the inspector was that the Sept. 16 blast was actually two shots fired in close succession. The

16-3-5

inspector noted this "creates more noise than normal, but would not be out of compliance according to the scaled distance formula."

In fact in another complaint investigation, the inspector wrote: "In the case where it is believed that blasting has caused damage, the DEP's jurisdiction falls within one half mile of the blasting site. According to current laws and regulations, any structures outside of one half mile are not considered in danger of blast damage."

WHAT THE DATA SHOWS
We examined 106 blasts, of which 57 were noticeable enough to be noted by the Litos brothers or cause a complaint.

Again binder shots were a factor, with 19 of the 30 being problematic. As the inspector noted, sometimes two blasts went off nearly simultaneously and fairly close together. This happened 14 times, and nine caused problems. Three of the others were small blasts.

Generally, it was the blasts with larger amounts of explosive per delay that caused problems. The closer they were to the communities (and further from Stanley Park) the more likely the larger blasts were to cause problems. For example, there was not a problem with a blast of 1,392 pounds per delay when it was 2,500 feet southwest of Stanley Park. But there was a problem when the blast was 3,200 feet southwest of the park and had 1,386 pounds per delay.

This was one mine, though, were there was more variation in delays. Theoretically, longer and more delays will moderate the ground vibration. At this mine, longer delays did seem to make a difference in some of the blasts.

For example, on March 8, 1999, a blast of 1,200 pounds per delay went off 3,750 feet southwest of Stanley Park. It did not cause a problem and had delays of 9 ms., 200 ms., and 600 ms. A blast that did cause problems on March 43, 1999, was located in the same area and shot 1,294 pounds per delay. It only had delays of 9 ms. and 200 ms.

PIE Mingo Logan, Arch Coal

Deborah Hatfield has taken her most precious photos and knick knacks off her walls. Too many times, she says, things have fallen off and broken when the mine behind her home let off a blast. One morning in September of 1999, the house shuddered and pictures shook. Quickly she called the DEP Logan office. By now, she knows the number by heart.

The blasting is actually just the most recent insult from the mining. For five years, the Hatfields have suffered though one of the worst cases of subsidence from the long- wall mining under the Pie area of Pigeon Creek. The cement steps on the porch shifted, their lawn sank, numerous cracks formed and their well went dry. So it's hard to tell which damage is coming from blasting. It certainly is annoying, though.

Patricia Bragg, the lead plaintiff on the valley fill lawsuit was dragged out of her quiet life as a housewife six years ago when her next-door-neighbor's well went dry just as she

16-3-5

moved into her new house. Trish was able to get replacement wells for a couple dozen in the community. She avoided subsidence damage, and life with the mine was not overly eventful for a couple of years. Then the blasting began. Her house is older, and the roof has begun leaking. Whether the blasting has caused cracks and shifting is yet undetermined. Just recently, though, the mine offered her (as required) a subsidence survey. That way they would know how the house appeared before long wall mining began underneath.

Over Labor Day weekend, there was not one, but two washouts from the sediment ponds for the valley fill up Nighway Branch behind the Braggs and Hatfields. DEP determined that the mine had not cleaned the sediment and mud out of the ponds, and the muddy water washing off the unfinished fill had no where to go except down Nighway Branch. Bragg's home was spared, but the water went up to the second step of her neighbor's porch (the same one who lost the water six years ago).

It's getting hard to tell where the damage is going to come from next in this little community.

WHAT THE DATA SHOWS
We examined 154 blasts, of which 51 caused problems. When we went to look at the logs, the mine official gave use three sets of files for three different permits. We found that the mine sometimes blasted twice or even, a couple of times, three times within two or three minutes. The mine official said he did not know that was happening. Every one of the 12 occasions that we found resulted in a problem blast.

16-3-5

The Bragg house is about 500 feet southwest of a house that was used as the closest protected structure in at least half of the blasts. This is another mine that shoots a large amount per delay. Ninety of the 154 blasts were more than 600 pounds per delay. Of those, 35 caused problems. A few of the non-problem blasts were about 5,000 feet from the nearest protected structure.

But what seemed to make the most difference was timing. DEP maintains changing timing can make a significant difference. In fact, it is the one change DEP has experimented with. All but seven of those that caused problems used only two different delays. They varied: 100 ms and 42 ms, 100 ms and 9 ms, or 42 ms and 9 ms (all with 500 ms. down holes). On the other hand, 30 of the 55 larger blasts that did not cause problems had more delays, generally 9ms 42 ms and 100 ms, with 500 ms down holes.

The seismograph triggered on 16 of the problem blasts. The frequencies of 12 blasts were within the 4 Hz to 11 Hz range can amplify the shaking of a house. Only two air blasts exceeded 115 dB, however. This mine only had a couple of binder shots with one causing a problem.

VARNEY White Flame

When White Flame blasts on the mountain above Varney Grade School, there's often a palpable shudder at Judy Justice's home, about half a mile southwest of the mine. At

Jackie Keck's house, which is on the road up to the mine on the southeast side, things shake on the wall when the afternoon blast goes off. He's been considering trying to videotape the movement. Keck did some blasting while in Vietnam and other stints in the military. He thinks the solution would be to do a series of smaller blasts, like sections, instead of one big blast. That way there would be smaller amounts of compression to dissipate.

Several people have filed complaints, and Justice kept a detailed log, which often says whether the blast was light or hard. As a condition of its permit, White Flame also had to seismograph the blasts, so there is an extensive record of air blasts and frequencies.

The problematic blasts often seemed the ones with air blasts above 115 dB. Harold Ward, one of the DEP inspectors for the mine, said that over the past few years they have found complaints start when blasts go over 116 dB.

Justice believes her home may be more susceptible to the low frequency ground vibrations because it is newer and built on solid rock. Its natural frequency could be closer to that of the blasts. Indeed, the frequencies of the blasts are generally in the 4 to 11 Hz range.

WHAT THE DATA SHOWS
We examined 134 blasts, of which 63 caused problems.

Air blasts were one factor. Of the 25 problematic blasts for which there was a seismograph reading, 20 were 115 dB or greater. Of the 71 that did not generate complaints, only 16 were large enough to trigger the seismograph. Of those only five had readings of 115 dB or larger.

16-3-5

Amount per delay was also a problem. Of the 42 blasts of more than 700 lbs./delay, 27 generated a complaint.

The frequency readings are quite revealing. Thirty-five of the problem blasts generated a frequency reading. And 28 of those were within the 4 to 11 Hz range that OSM has found to amplify the vibrations of a house. Only 16 of the non-problem blasts generated readings, and only 4 of those were with the susceptible range.

Coal dust
The DEIS should document the numbers of non-miners who live in MTR regions and have breathing-related health problems such as asthma, and coal-dust-related disease such as black lung. The problem with coal dust is related, in part, to coal trucks (see below) and coal trains. Now that trucks are more frequently tarped, coal dust is less prone to roil off the vehicles. But, it still roils off coal trains, often time directly onto nearby homes. (Non-coal dust is still a huge problem with coal trucks, see below.)

15-2-2

Coal dust problems associated with coal processing plants are perhaps best documented for the town of Sylvester, W.Va.

Jury finds Massey subsidiary liable in coal dust case
By Martha Bryson Hodel, Associated Press Writer, Feb. 7, 2003

MADISON, W.Va. (AP) -- A jury on Friday ordered a Massey Energy subsidiary to pay residents of a coalfield town about $1 million in economic damages caused by coal dust falling on nearby houses, vehicles and other property. However, jurors did not award any punitive damages.

The six-person jury deliberated about 181/2 hours over three days before delivering its decision against Elk Run Coal Co. in Boone County Circuit Court.

The verdict came in a lawsuit filed by more than 150 residents of Sylvester who claimed Elk Run's operation, located no more than 750 feet from some of their homes, has destroyed property values, making it impossible for them to sell their homes and move.

Residents had submitted 110 individual damage claims seeking total economic damages of at least $3 million. Jurors awarded a total of about $1 million, said plaintiffs' attorney Brian Glasser.

One plaintiff, Mary Miller, said Sylvester residents have been "prisoners in our homes" because of coal dust falling from Elk Run's operations.

"I don't want money. My goal is to stop the coal dust so we can live our lives again," Miller said. 15-2-2

Jurors found that Elk Run had created a nuisance and had negligently harmed the plaintiffs. The jury also determined that Elk Run had failed to comply with federal and state surface mining laws by failing to control air pollution or failing to protect offsite areas from damage from its operations.

However, jurors declined to award punitive damages, saying Elk Run did not act with intentional or reckless disregard.

Jurors also answered an advisory question that gives Boone County Circuit Judge Lee Schlaegel the authority to place Elk Run's operation under the court's supervision. Jurors said "yes" when asked if Elk Run is creating a nuisance that is causing damage to any of the plaintiffs.

It will be up to Schlaegel to decide whether to order court supervision of Elk Run's operation.

The trial started in October and jury deliberations began Wednesday.

Because the jury found that Elk Run had violated the federal Surfacing Mining Act, residents will ask the court to order the company to pay an estimated $2 million in legal fees and costs associated with bringing the case to trial, Glasser said.

He said residents also will ask Schlaegel to require Elk Run to implement a dust control plan the company outlined during the trial. A hearing on the company's dust control requirements could be held within two weeks.

That plan would include covering coal conveyor belts and truck and rail loading points. The number of trucks hauling coal into the plant would drop from 35,000 to 7,000 a year. Residents also want the judge to order that the trucks carry no more than 80,000 pounds, the legal weight limit on most state roads.

"If it's good enough for court, it's good enough for them to follow," said Glasser, whose firm has been working on the case for five years.

After the verdict, Glasser told about 50 plaintiffs: "This will provide some insurance that you won't have to put up with this in the future."

Another plaintiff, Pauline Canterberry, said she was happy with the verdict but feared residents would have to continue to police Elk Run.

"I wish I can say no to that question, but they are people you just can't talk to, and they have been from day one," Canterberry said. 15-2-2

Massey Energy spokesman Jeff Gillenwater said he had not seen the verdict and could not comment.

Sylvester residents in the audience applauded the verdict as the jurors were excused.

Unfortunately, Sylvester residents are reporting that the problems are not yet solved. Can the DEIS possibly document the social and cultural toll associated with living in a coal-dust coated town? We repeat, the numbers of people suffering illnesses that could possibly be related to both short- and long-term exposure to coal dust should be documented in the DEIS. How can the EIS assign value for lost time and increased aggravation for people who have to clean their homes daily? Sylvester residents relate having to wash previously washed dishes *before* meals because dust has settled on them. Elderly people put their health at risk when they undertake frequent, vigorous cleanings of their homes' walls and roofs. Also related to coal dust is property devaluation. Property values for homes and other buildings before and after MTR encroached on a community should be included in the DEIS. Stress again comes into play—both young people and the elderly residents worry that their homes, for which they have worked their whole lives, will be valueless should they have to sell.

Coal trucks

The dust from the big trucks and from the traffic going into the mines is awful and the company knows it's awful, but I almost have to beg the company to put down water to settle the dust. The large supply trucks going to the mines are slowly breaking down the truss bridge, which is the community's only outlet to the main highway. —Richard Bradford (see below: "Comments from individuals.") 10-8-2

Much publicity and political posturing has surrounded the issue of coal trucks in southern West Virginia's coalfields. While the issue is not solely a MTR issue, it is partly. Where coal is

shipped by truck from MTR mines, the DEIS should examine associated social and cultural impacts. As with all MTR issues, the impacts on peoples' health should be quantified. Fear, worry and stress are big aspects of this issue—which take a real toll on human health. Since people driving the narrow, winding mountain roads have been killed by coal trucks, fear is not unwarranted.

Coal trucks also induce noise-related and other stresses for people who live near coal-preparation plants. For instance, people living along Rt. 65 near the Delbarton Mining Company (in a scenario repeated all around the coalfields) have to put up with intense coal truck traffic. (A Massey Energy processing facility there apparently processes both underground and MTR-mined coal.) Trucks literally rattle the houses all day, from early in the morning until late at night, interrupting sleep. Mud the trucks' tires gather while traveling on the processing plant's unpaved roads dries to dust and flies off the trucks, coating peoples' homes. Sitting on the porch is no longer an option. Garden vegetables are covered in dust. Some people have abandoned summertime back yard barbeques. A walk across the street to get one's mail is perilous, as is pulling out from one's driveway onto the road. All these factors increase stress, and therefore health problems, for coalfield residents. Properties are potentially devalued.

Also, as with all MTR issues, people suffer from disenchantment with the political process. Coalfield residents feel their voices are ignored, while coal industry lobbyists get their way. Indeed, citizens attempting to lobby their legislators on this issue have had doors closed in their faces and have had to sit through legislative hearings where legislators openly consult and consort with coal industry lobbyists. Politicians are so obviously in the pocket of the coal industry that citizens lose faith in the political process. The DEIS should attempt to examine what this means for society's future. 10-8-2

In a June 11, 2002 Charleston *Gazette* article by Paul Nyden, "Coal truck debaters meet at Riverside High School: Citizen arguments pit safety against jobs," Prenter Hollow, Boone County, W.Va., resident Patty Sebok is quoted as saying that most residents did not favor an increase for coal truck weight limits: "Since most southern [West Virginia] residents and the northern truckers and residents do not want a weight increase, it seems to me that the citizens are not currently controlling our state government.

"Instead of government for the people, by the people and of the people, it appears as if it's government for the coal companies, by the coal companies and of the coal companies."

Another issue that the DEIS should examine, quantify and report on is the externalized costs that taxpayers pay when coal trucks from MTR mines damage roads and bridges.

Hernshaw residents fighting coal trucks; Attorney general, delegates offer to help with effort
By Brian Bowling, Charleston *Daily Mail* , Sept. 21, 2001

Hernshaw residents tired of coal trucks breaking state laws and endangering their lives developed a two-pronged strategy for solving the problem.

One prong is Delegates A. James Manchin and Mike Caputo, both D-Marion. The other prong is Attorney General Darrell McGraw.

More than 70 residents squeezed into a basement meeting room at the Hernshaw Methodist Church Thursday evening for a 90-minute strategy session.

Randall Boyd, the resident who organized the meeting, said residents are tired of dodging speeding coal trucks, having chunks of coal and strips of recapped tires striking their vehicles and coal dust coating their houses and lungs.

"I'm not against coal mining," Boyd said. "I'm not against trucking. But it has reached an unreasonable level."

The residents agreed on several goals including a petition drive to gather 5,000 signatures supporting changes in state law to make it easier for state weight-enforcement officers to document that coal companies are deliberately overloading coal trucks.

In imitation of John Hancock signing the Declaration of Independence, Manchin signed one of the petitions in large handwriting.

"There'll be no mistake where we stand, eh Mike?" he said to Caputo.

Manchin said they attended the meeting at the behest of the United Mine Workers and assured citizens that they would back their efforts even though no one in the room could vote for them.

"Whatever it takes, we're going to try to get it done," he said. 10-8-2

Most of the coal trucks traveling W.Va. 94 through Hernshaw come from Massey Energy Co. mines. The union is campaigning against the mostly non-union Massey to highlight how its operations affect coalfield residents.

The residents adopted Boyd's proposal that they hold a second meeting when the Legislature is in Charleston for its October interims. While the focus will be on talking with the Kanawha County legislators, Boyd said they plan to invite all 134 delegates and senators.

Cam Lewis, head of the Division of Highways' weight-enforcement program, said he's been trying to get the authority for years to use coal loading and unloading records.

"This is the first time in years that anyone in the Legislature has shown any interest," he said.

He also suggested residents push for a tarp law that would require coal trucks to cover their loads. Currently, an enforcement officer has to actually see coal falling off a truck before he or she can cite the driver for having an unsecured load, Lewis said.

Meanwhile, McGraw told the group that his office could seek injunctions against the companies selling and buying the coal as well as the trucking companies for conspiring to break the current state law limiting trucks to 80,000 pounds.

Once a judge issues such an injunction, all the companies involved become subject to fines and contempt of court actions if they overload another truck, he said.

Before his office can act, however, it has to receive authorization from the governor.

Coal truck safety weighs on minds of area residents
By Charles Owens, Bluefield *Daily Telegraph*, August 10, 2003

WELCH - When a coal truck snagged a cable line outside of Jerry Duncan's home in the small Filbert community, the man realized that congested coal truck traffic along the narrow County Route 13 was getting a little too close for comfort.

"They hit the line that crosses the highway, and it jerked it out of the room that I had fixed for a television room," Duncan said. "It just jerked that cord out, and ended up turning it loose, and it actually jerked the videocassette recorder around. I guess it was jerked out of the little cabinet it was in."

Duncan said the coal truck dragged the cable line about 75 feet down the road just past the residence of Gary Mayor Henry Paul. The incident happened last year, and it wasn't the first time a coal truck damaged the man's home.

10-8-2

"The coal trucks also ripped the guttering off of the side of the house once," Duncan said. "I was laying in bed, and all of a sudden I heard a thump and a roar."

Duncan, and many of his neighbors, have fought in recent years to keep coal trucks off Route 13 between Gary and Filbert because it is difficult for vehicles and coal trucks to pass each other on the small and narrow road.

"It's too narrow for two cars to pass - not to mention a truck," Duncan said. "We don't really need those coal trucks right here. The sidewalk is actually up against the side of my house."

"Me and most of my neighbors live between four bridges that are 16-ton weight limits, and they are already cracking on both ends that connect to the highway," Neve said. "That's due to old age and years of overweight coal trucks. My concern is one day we are going to wake up and not be able to get out of here. But our main concern is for the safety of our citizens here. I would say 80 to 95 percent of the folks who live here in Filbert are all retired. This is more like a retirement village."

Neve said mud and dust from coal trucks also is a problem in the Elbert community.

Comments from individuals
Below are comments (italics added for emphasis) from individual coalfield residents (and a few non-coalfield residents) as given to Coal River Mountain Watch, Delbarton Environmental Community Awareness Foundation and the Ohio Valley Environmental Coalition (original copies enclosed). Many of the people who gave comments to these groups may *not* have made their own individual comments directly to EPA. Nevertheless, they wanted to share their

thoughts on MTR for inclusion in our DEIS comments. *Please pay special attention to the voices of the affected people. These words tell the story of MTR that the DEIS fails to document.*

As you read these comments, please watch for recurring themes. Fear and anger are real in the MTR regions. These emotions are not to be dismissed because they are, well, emotions. They arise from the reality of life in the shadow of MTR operations. They arise from facts--health problems, flooding, blasting, political marginalization, loss of culture. They have a real toll on society and culture in the coalfields, which the DEIS must document and address.

Blackwater spills, fear for lives
My name is Patsy Carter and I live on the Tug Fork River. As I watch the beautiful green river, it makes me feel so peaceful and relaxed, then all at once the river turns black from a Massey Coal sludge spill. I am not against coal mining, but we need to deep mine coal and mine responsibly. There is no need to destroy these mountains and streams and our children's future to mine coal.

I fear for my life and my family's life when it rains. I think of ways to run for the hills for my life, from the floods caused by strip mining. I plan to keep my family pictures close to me so that I can save them.

17-2-2

The strip mining is taking everything from us and our children. They will have no future and will never be able to live as true mountaineers as we have and that is part of our children's heritage.

Under this blackened, horrible life we are forced to live with, because of irresponsible mining – this has made our state "Almost Hell" – instead of – "Almost Heaven." The people in Logan and Mingo county need to wake up.

Stop Mountaintop Removal and stop valley fill mining---stop filling the headwaters of our streams.
--Patsy Carter

Blasting damages
Monroe has lived here for 55 years and hadn't had any problems like this:
Mirrored tile fell in bathtub. Had to put up new shower wall.
Water now seeping in basement. Wall cabinet fell – broke all my dishes. (basement).
Had to buy new dishwasher and oven doors wouldn't shut.
Had to have main door repaired. Wouldn't shut enough to lock.
All doors inside house including cabinet doors won't shut good.
Ceiling tile on sun porch falling.
Floor hooved up in living room, dining room and bathroom.
Walls in 3 bedroom bowed out. Tile and mirrored tile in bathroom coming down.
Had to screw paneling back in 3 bedrooms where it came loose.
Counters unlevel now. Furniture stayed. Covered with dust. Pictures wont hang straight now.
All windows have to be screwed shut. Have white shingles on roof, which is now black.
Since '95, I have had 3 heat pumps put in.
Blocks in basement cracked. Can see outside – we put silicone in crack. Several large cracks by meter box outside.
Out building has large cracks – water now coming in cellar
--Margaret and Monroe Crouch

16-1-2

Flooding and fear, ruined water
(Comments deliverable at EIS public hearing in Charleston, W. Va.)
My name is Maria Pitzer. These are my children, Jessie and Chrystal Gunnoe. We are from Bobwhite in Boone County. We are against Mountaintop removal. **We are a family that lives in the constant shadow of mountaintop removal, valley fills and slurry ponds**. The mining around us has destroyed our quality of life. The blasting from the mines is a constant reminder of why our lives have changed so much. My children are not allowed to play in the water that runs through our property because the ponds run straight into it. The aquatic life in this stream is all but gone. **Catching bait or fishing is a waste of time now there isn't anything there to catch,** unless it would be some incurable disease. Who can say that, with the utmost certainty, this will not endanger my children's health? You, the panel of people who say that what the mine companies are doing is okay. I'm sorry but this has not yet been a trustworthy source.

I have lived on this same property for 35 years of my life. In the same town with the same people, that's all saying the same thing "Mountaintop removal is going to run us out of our homes and off our land like it has so many before us" and I'm beginning to wonder, are they right?

We were flooded in 2001--3 times. With each rainstorm the creek and river fills up more with rocks and debris. In 2002 we were flooded once again. The creek now runs much deeper and faster than it ever has. Then on June 16th of 2003 we were flooded horribly. The storm was what the mine company called a once-in-a-hundred year storm. I heard it was an act of God, which is like saying that the Buffalo flood was an act of God. *I remember when I was a child it rained until I was running in water to my knees in this same yard that is now gone. These catastrophic floods didn't happen then. Why are they happening now? MTR is why. I'm not sure what all the scientific tests tell you, but Common sense tells me that if you pour water onto a rock it's going to roll off, if you pour it into soil it will absorb.* 17-2-2

The flood on June 16th has ruined our life. The rains came and the hollow coming through our property rose so fast that we didn't have a chance to react. We were trapped in every direction. The river running by me was still clear and the hollow washing into this river was raging. I was being flooded by a stream that 3 years ago, before the stripping started, I could step over. Within 3 hours after it started raining we had lost almost everything. The water coming by me was sent in on mudslides that filled the creek and move the water closer to our house. The mudslide tore through my barn and through my orchard of fruit trees, where there was one of our dogs was tied out. The water and mud came so fast that we couldn't get our dog out. The next morning his collar was lying in the water's new path. As the water and mud continued down it filled a 5-foot culvert that had just recently been put back in from the storms of 2001. From 1981 until 2001 it was 3-foot culvert. It was part of our access. The water washed around the 5-foof culvert and took out my septic system, my bridge and all of my drive way and most of my yard. My yard now drops into a 15-foot crater. It's not safe for my children to play in their own yard. The entire path that this creek took through our property has been destroyed. There is still more mudslides in this creek's path waiting to come out. The quality of our well water has compromised to say the least. *Up until the 16th we had good water but now it's terrible. We are now carrying water.*

Thank God that the flood water and mud stopped 20 feet short of our house. Our house as of right now is okay. OUR HOME IS DESTROYED! *The life that we have always known is now non-existent. Hikes through our own land are now unsafe. We have so many slides and mining breaks. We are of Cherokee nationality and we have always been taught to live off the land. This heritage will no longer be passed down because it is being destroyed with each blast. Everyone that has a hand in allowing this mining practice to continue is allowing WV and its heritage to fade away. We the people of WV are going to pay the ultimate price. We have to live here after the coal is gone. The mine companies don't care to leave us in ruin and leave our people poor. Leaving for us would mean a complete change of lifestyles, something we are not willing to do.*

As a family we use to love to sit on my front porch and watch a storm come and go. Now it terrifies us to see a storm come. When the rains start everyone gets scared of what going to happen next? If it's raining no one in our house sleeps. My daughter at 9-years- old is constantly worried with the mining going on around us. She seen a sticker that said, "Coal keeps the lights on." She replied by saying, "Yeah, but the trees keep our air clean. She knows what affect MTR, valley fill and ponds are having on us. Yet the college-educated scientist is still looking for the reasons we are all getting flooded so horribly, so often. Hopefully this will open up your eyes and make you see that *the community impact of MTR is simply devastation.* The rights of people in Baghdad it seems are more important than the rights of the U.S. Citizens. *I know our rights to life, liberty and the pursuit of happiness are pretty much gone, thanks to MTR and its practices.* If you can sleep with yourselves, I guess we have no choice but to stay up with the storms. 17-2-2
--Maria Pitzer

Surface mining destroying Whitesville
I wanted to voice my opinion AGAINST Mountaintop Removal Valley Fill mining. This mining is NOT producing jobs, just the opposite. it is destroying jobs 1-9

The town of Whitesville is dying with each new surface mine. The surrounding communities are disappearing from the effects of Mountaintop Removal, the blasting and the flooding. *The animals are running from the hills from lack of habitat, and are coming down into our homes and yards.*

The blasting is destroying people's homes, and then we have floods caused by this type of mining. Our children will NOT have a place and our mountain culture and heritage is being destroyed with each mountain.
We are the poorest people and we live in the coal rich counties. Why?

The coal companies DO NOT put anything back of economic development. There is NOT one development site on the 90,000 acres destroyed in the Coal River Valley. The coalfield schools are being closed and as a matter of fact – 2 schools were closed this year, and both are within 1 mile of many Massey Energy mines. Coal is NOT giving anything back. 10-2-2

President Bush should come to these hollows and talk to the people who live with the effects of this mining. The recommendations in this study is pure HOGWASH!!!!!!!!!

P.S. I live in the coalfields, born and raised.
--Lisa Henderson

Brother left homeless by floods, doesn't find wild things in the mountains anymore
My name is Jack Brown, Jr. and I live at 104 Finley Circle in Walhonda Village, which is in the Clear Creek Hollow. I am a lifetime resident of the great state of West Virginia. I was born in 1935 at Edwight, WV and my dad was a retired coal miner. I watched him die of black lung 6 years ago.

When I was a small boy living in the coal camp at Edwight, Whitesville and the surrounding areas there were thousands of coal miners working in the mines, not like today when only a few work in the mines.

I have seen the streams run black with coal dust. But not the whole tops of mountains leveled. The sludge dams they have built and the water they have polluted, coal trucks ruining the highways--for only a few real jobs? Believe me, I am not against jobs.

When they polluted in the old days, at least 10's of 1000's of coal miners had good paying jobs. Then the let down happened; the mines shut down and the coal market dried up, people left the state to find work.

But here we go again. Big coal companies have found a cheaper way to get the coal. Not like my dad got it, but by removing 1000's of mountaintop acres, filling in the little hollow streams. I used to catch spring lizards for fish bait. We don't find the wild things in the mountains like that any more.

Big coal has bought and paid for politicians they own and don't give me much of a say so in the matter. They promise me better, but big coal uses their money to change the laws to suit them.

I watched the flood waters wash over my brothers house, killing his animals and leaving him homeless. I saw what happened to Boger Hollow and Sycamore Hollow when the sludge ponds broke. I watched my friends and neighbors cry wondering what to do next. Now what did big coal do? Not our fault; an act of God; It wasn't our fault the dam busted and you cry-babies lost everything you had.

In finishing this little letter--I'm going to stay here in my little home and I'm going to fight with the big coal for a decent place to live without a polluted environment like we have now and not one law maker to go to bat for me.

I guess I'll be fighting for a long time or at least until someone does something to stop this land raping, polluting the water like big coal is doing. Oh yes, before I close, the Governor of our State will only be a one-term governor, so if you can stop the raping of my beautiful mountains and stand up to big coal. Please give me your name. I want to stand behind you and support you for governor.
--Jack Brown, Jr.

1-9

Cost of buying drinking water
I live in the city of Lexington, which is in the Bluegrass region of Central Kentucky. Most of the population of the state is here in Central Kentucky. We get our water from rivers such as the Cumberland, Kentucky, and Licking Rivers. All three of these rivers originate in the mountains

of Eastern Kentucky, where *mountaintop removal is annihilating watersheds and contaminating our water supply. We, who live here in Central Kentucky, are forced to pay for the cleanup costs of mountaintop removal through extra water purification costs that are passed on to us through our water bill.* And you can't tell me that the water's clean, even after all that processing at the water plant. It just means they have to put more chemicals in, which pollute our water further. The heavily chlorinated smell of the water around here makes me sick - *and here's another indirect cost of mountaintop removal that's passed on to me every day: I buy filtered water from the health food store, which I cannot afford.* Because of health conditions, I drink a lot of water, and these costs add up. Mountaintop removal is breaking my bank while it's ruining my state.
--Perrin de Jong
Kentucky Heartwood
P.O. Box 555
Lexington, KY 40588

5-1-2

Massive Ruination
Mountaintop Removal is Massive Ruination, not only to the beautiful Appalachian Mountains of West Virginia, but also to every creature whose existence depends on these mountains for their survival, from the streams covered by Valley Fills to the valleys below, where citizens dwell.

It leaves barren lands, valleys filled with debris and polluted streams and airways from rock dust and coal dust. It destroys land, citizens' possessions and their health, it leaves slurry impoundments of toxic disposal seeping into our water table.

What once started as an asset to the State of West Virginia has become a liability and the State of West Virginia taxpayers are paying for their damages.

Hazards of Mountaintop Removal
- Barren Mountains
- Endangered Species
- Endangered Trees
- Flooding
- Toxic Valley Fills
- Air Pollution
- Contaminated Water
- Destruction to Citizens Property
- Blasting Damages
- Health Hazards
- Damaged Highways
- Damages Bridges
- Unsafe Run-off ponds
- Slurry Water Spills
- Dammed-up Rivers

--(Not signed)

1-9

Psychological scars
My scars from mountaintop removal have been more psychological than physical.

All my life, I have been free to roam the mountains and valleys near my home. Now, I would be considered a lawbreaker and a trespasser if I were to go back to these places. The first thing a coal company does when it takes a lease is to build a gate, hire security guards (whom they dress as county deputies to intimidate the public), and install cameras to limit access. I consider this to be an infringement of my civil rights. 10-2-2

Sometimes a blast from a nearby mountaintop surface mine will rattle the windows and doors in my house, even to the point of hearing the sheetrock tear from the nails in the ceiling, and if the blasting gets closer the whole house may slip off the props holding it up and slide onto the railroad tracks down below.

And maybe a large boulder from the cliffs up above the house will be dislodged by the blasting and destroy the house. 16-1-2

I have Public Service District water, but I also have a deep well, which I hope will not be harmed by the blasting.

The dust from the big trucks and from the traffic going into the mines is awful and the company knows it's awful, but I almost have to beg the company to put down water to settle the dust.

The large supply trucks going to the mines are slowly breaking down the truss bridge, which is the community's only outlet to the main highway. 15-2-2

My yard is full of squirrels, rabbits, and bears that have been chased out of the mountains by the blasting of the strip miners and by the logging, which is a precursor to mountaintop removal stripping. The little animals coming out of the mountains are nothing more than skin and bones because their food source has been removed. I love to feed these little animals, but I would like to see the coal companies and logging companies pay part of the feed bill.

I would say that mountaintop removal strip mining has had a severe impact on my life and the life of my community.
--Richard A. Bradford

Delbarton, Mingo Co. citizen concerns about coal waste impoundments, coal dust, blasting, floods

1.
I, as a resident and business owner of Mingo Co., think if you build these ponds around residents you should buy us out and relocate us. Don't put people in danger. Coal is not worth our health or our lives. Put in mind first. I'm all for mining coal but do it sage and there won't be no problems. After all as a owner of a pizza place, if I don't do it right the people would put me out of operation. So lets do it right and there wont be no problem. And I wouldn't blame them.
Thank you
P.S. So do it right. That's the only way!
--Troy Columbia

2.
Coal waste impoundments are an accident just waiting to happen. I base this opinion from past experiences; Buffalo Creek, Logan County, WVa. And Wolf Creek Martin County, KY.

Also I can see no possible way that the people in this valley could be evacuated in case the impoundment fails.
--William Hall

3.
I am opposed to the slurry pond impoundment. With all the rain I an afraid it will break and we will have a disaster like Buffalo Creek. *I live below the pond, in a valley, and if it breaks there will be no place to go fast enough to reach safety, live are endangered here, also the more they blast and mine, the worse our water gets – the dust is awful.*
--Dottie Maynard

4.
We have noticed some cracking in our sidewalk. We would be very concerned if a pond was installed in our area. We don't want to see another disaster from this action. A crack in the sidewalk is very minor compared to the disaster a pond would possibly make. We can live with sidewalk cracks, hopefully that's all that will occur.
--Gary and Brenda Hunt

5.
I am against blasting and the mining underground. If they were to mine we would be forced to move yet again from the area. Slurry ponds are not a necessity around such a rural area. They will cause grief and worry for residents all around Hull Creek as well as Hull Creek Hollow. Also Mountaintop Removal causes sludge to fun into streams, creating even more unsafe water for all life, not just humans. We must take care of what we've got, because if we don't do something, some heartless bastard will!
--Bobby Sturgill

6.
Structural damage, cracks all in garage floor, crack in blocks and cracks (hair line) all over driveway, one large one, caused by blasting in early morning hours. Value of the property dropped when sludge pond was approved by state. We were declared as living in high-risk zone. Noise from mine equipment day and night, and coal dust damage. Several occupants would prefer to relocate, and would like to be bought out for a fair market price and relocation expenses. New garage, cement and home improvements app. 5 yrs. old.
--Fred Smith, Delbarton

7.
I worry about the safety of my children and grandchildren. I don't think these impoundments can be made safe. The underground mining in the area could affect this impoundment. The mineral rights I own can never be recovered because of the presence of this coal waste impoundment. It has devalued my property. The added truck traffic and trains have made our lives miserable. Our well water quality has been affected as well.

--James F. Maynard

8.

Living near a coal waste impoundment, not only depreciates the value of the property for the home owner, or puts the ground water supply into question, or anxiety during heavy rain periods, thinking this may break, but it devaluates life itself.

To anyone not living in the coalfields... we are giving up our environment so you may light yours. Please think of us hillbillies, when flipping your light switch.
--Walter Young

9.
Having a coal waste impoundment within a quarter mile upstream is a very anxious situation, not to mention the dust and coal truck traffic every day, which is a very unhealthy environment to any one. Just wonder what it is doing to our underground water supply, just to put in words, its like living in exile, it has destroyed our way of life.
--Carol Young

10.
First you wonder what the coal companies are releasing into the water. If it will make you sick or cause death before your time. If it don't kill you, the next thing you worry about is if this thing burst will you be alive or if everything you work for will be destroyed. *You live in a "panic" from one minute to the next and if it rains from 2 or 3 days you get very anxious. I don't think this is any way to live!* Next you wonder what these coal companies are hiding.
--Leroy Runyon

11.
Fear, anxious, panicky, afraid – these are a few words I use to say how I feel about coal waste impoundments. When the TV or radio give a flash flood warning you wonder if you are going to be alive the next minute or not. If it is going to be another Buffalo Creek or Martin County. You wonder what the coal company are releasing from the coal impoundment in the water tables that you are drinking and why are they so secret about these coal impoundment.
--Geneva Runyon

12.
My family and I feel threatened by the presence of the impoundment that is constructed at Delbarton Mining Company. When it rains heavy, we worry what could happen if it broke. We are also concerned about how the underground mines will affect the stability of the impoundment. Also, there is more dust in the area, which is hurting people and causing breathing problems.
--Larry and Alisa Maynard

13.
Blasting shakes my foundation. Coal dust is all over everything. 18-wheelers running overloaded way too fast. Our well water is mined. The slurry pond is too dangerous for all of us that live here in this area. So many of the ponds break for different reasons. Don't want to be one of the ones to get washed away.
--Betty Wilson

14.

The fact that no one let me or my family know about the sludge pond at the mine site really upsets me. It's a scary thing to think that it could break and wash us away like other sludge ponds has done in other places and to see this in newspapers and on TV. I would really hate for this to happen in my neighborhood. *I have two children I try hard to protect. I can't protect them from this!*
--Dorothy F.

(End of comments from Delbarton residents.)

Ecocide
MTR desecrates the earth God made for us all to be good stewards of and destroys this earth that future generations will depend on to live. Whole ecosystems are being wiped out along with streams that supply water and valleys where crops can grow. This is a crime against Mother Earth and her people and affects the wellbeing of the whole planet.
--Barbara Warner
1955 Tatum Lane
Lebanon, KY 40033

Lost Tourism
I love to visit the mountains. If the mountains are gone, there will be no reason for me to visit. I do not care to visit a MTR site or a valley fill, even a "reclaimed" one. I don't think we should be replacing out natural landscapes with non-native organisms. We must stop destroying God's gifts.

Ray Barry
Lexington, KY

Holocaust 1-9
I wish to enter my comments into the record about mountain top removal.

I was born in WV and have lived here all my life except for a short period of time. I am deeply concerned about this type of mining, as it will effect the environment harshly. This will destroy streams, forestland, fish wildlife, that were created by God. We need to protect it from this certain destruction and i believe it is mankind who is in charge of this task.

I do not believe the system in place is going to do anything but allow for the destruction of the land for many years to come, maybe forever. This type of mining is too destructive and should not be allowed. The coal mining jobs will be lost to big shovel and fast moving coal trucks and nobody is going to benefit but the few on top of this action. The human society will be the looser, fisherman, hunters, fresh water drinkers, coal miners, homeowners, wildlife lovers, wood producers etc.

I make these statements not for myself but for the human beings who have to live after this holocaust takes place, if we allow it to happen. We are very short sited if we do not see what perils lies ahead for us.

Sincerely,
Larry Dadisman

912 Greendale Dr.
Charleston, WV 25302

Left out information
Why wasn't the "No Mountain Top Mining Alternative" assessed as one of the final alternatives?

A "No Action Alternative" was assessed. This alternative is unacceptable to most people (except perhaps the coal industry) and probably won't be selected.

Banning MTR is certainly not impossible. Other horrible environmental practices have been banned in the past (such as use of DDT, ozone depleting compounds, building of hazardous waste landfills in WV, construction of nuclear power plants, etc.).

Sure, the coal industry may not be able to mine coal as cheaply or quickly. Our electric bills would probably go up. Fine. That might only serve to make alternative and cleaner energy sources closer to becoming reality, sooner.

But, consider the positive impacts of the "No Mountain Top Mining Alternative." I would have like to have read about the impacts of this alternative.

In my opinion, this EIS is flawed and unacceptable, because it did not list the "No Mountain Top Mining Alternative" as one of the final alternatives.
--Mel Tyree

1-8

Disenchantment with the political process
What is the social and cultural fallout when people stop believing in the democratic process that is the foundation of our nation? Will the EIS address this?

People in the coalfields have witnessed so much corruption that it is hard from them to continue participating in the political process. Why bother? This, of course, is what the coal companies and their most attendant politicians and so-called regulators would most like to see—a silent, complacent, demoralized and politically inactive population.

Coalfield residents have seen it over and over—the coal industry's reckless disregard for laws written to protect the people and the environment. When citizens have made headway, via lawsuits and/or organized citizen action, to get laws enforced, the rules and laws are changed, and rarely, if ever, are they changed in a way that benefits coalfield residents.

Although West Virginia ranks 49th in per capita income in the country and dead last in median household income, the state ranks at the top in per capita expenditures on various forms of corporate welfare. For instance, under the administration of former coal executive Governor Cecil Underwood, the coal industry escaped more than $400 million in Workers' Compensation Fund debt.

Coal has been the dominant player in West Virginia's political scene for more than a century. Growing campaign contributions from coal sources fueled the 1999 state legislature's resolution supporting "all methods of coal mining," a resolution that was specifically directed at mountaintop removal mining. A tax law passed in 1999 has dramatically reduced coal property

11-9-2

taxes, while increasing the tax rate on individual property owners. In the 2000 and 2002 state legislative session, coal's legislators killed a bill that would have set stronger enforcement mechanisms for overloaded coal trucks. Also in 2002, the coal industry received a $2.5 million break in the amount they are required to pay for their water pollution permits.

According to the West Virginia Peoples' Election Reform Coalition (PERC), Governor Bob Wise did not receive as many coal dollars during his election campaign as the bought-and-paid for Cecil Underwood. Nonetheless, 15 percent of all contributions to Wise's inaugural ball ($105,000 in $5,000 donations, enough to buy 21 tables at the ball) came from coal industry sources. Total coal industry contributions to Governor Wise for his 2000 election campaign and inaugural amounted to more than a quarter of a million dollars.

The governor raised over $70,000 at a re-election fundraiser in March of 2002 while the legislature was debating increasing the weight limits for coal trucks. Most of those contributions came from coal companies, coal haulers and land holding companies. For instance, Wise received $20,500 from employees and spouses of Riverton Coal and its parent company RAG Coal International. This is the largest single-day giving to Governor Wise that PERC has seen from any array of individuals associated with one corporation since it began monitoring campaign financing in 1996.

The coal industry got its coal truck weight limit increase.

This is just one recent example of the coal industry's dominance of the political process (as is the DEIS, with its absurd recommendations vis a vis the science contained in the document.) How will the EIS document coalfield residents' loss of faith in the political process upon which our government is based? What weight will be given to the impacts this erosion of faith in the system has on society and culture?

11-9-2

Externalized costs
While an EIS is not supposed to examine economic issues, this DEIS does, but in a very skewed manner. So, if you want to bring economic studies into play, how about a little balance? The EIS should examine ALL the externalized costs associated with mountaintop removal / valley coal mining. Taxpayers are left footing the bill for massive clean up costs associated with MTR-exacerbated flooding. Taxpayers pay for MTR-related tax credits given to the coal industry, such as the billion dollar super tax credits that were supposed to create jobs, but which actually helped coal companies purchase the massive draglines that replaced human workers in droves. Taxpayers also pay out millions when citizens have to resort to the courts to get regulatory agencies to enforce mining laws. Long-terms costs of the environmental degradation associated with MTR are unknown, but should be identified and quantified.

Unreported in the draft EIS are what the current and future costs to society are in terms of:

- MTR-exacerbated flooding;
- reclaiming abandoned mine lands;
- disrupted hydrological systems;
- drinking water replacement;
- lost hardwood forests' potential lumber value;
- coal waste impoundment disaster-avoidance and/or disaster clean up;

- lost value of life-essential ecosystem services;
- lost way of life (see below: "Lost culture / way of life")
- altered microclimates and regional climate (as an example, the destruction of millions of trees reduces the transpiration of water, which affects both humidity and air temperature; also, the loss of hundreds of thousands of acres of forests canopy--shade--and the tops of the mountains themselves also affects weather patterns);
- declining political participation as government collusion with coal industry operators decreases public faith in the democratic system.

The long, and as yet, not-fully-identified list of externalized costs bring more negative social impacts. When real production costs are foisted off onto communities, governments and the environment, the true costs of coal are suppressed. MTR companies can sell MTR-coal for a price that does not reflect the true cost, since the company is not paying those costs. This sustains the market for MTR-coal, and decreases the competitiveness of other energy sources. This delays the inevitable rise of truly cleaner, alterative energy. Coalfield residents are thus denied a chance at the jobs available in truly cleaner alternative energy sources, as well as the environmental benefits associated with truly cleaner alternative energy sources.

By allowing coal companies to externalize costs associated with MTR and thus delaying the switch to cleaner forms of energy, government is allowing global society suffer greatly, perhaps catastrophically, as global warming increases. According to a Dec. 30, 2003 *GreenBiz.com* article "Global Warming Insurance Claims Grew to $60 Billion in 2003":

11-9-2

> MUNICH, Germany, Dec. 30, 2003 - Munich Re, the world's biggest re-insurance company, has attributed a sharp increase in weather-related disasters around the world to global warming.
>
> In its latest annual report, the company -- which insures insurance companies -- puts the combined cost of this year's global natural disasters at more than $60 billion, about $5 billion more than the year before. Insured losses increased to about $15 billion, a jump of $3.5 billion from the previous year. The number of natural catastrophes recorded was around 700, roughly same level as 2002.
>
> The report also found that more than 50,000 people were killed in natural catastrophes worldwide, almost five times as many as in the previous year. The company attributed the jump to the heat wave in Europe and the earthquake in Iran, each of which claimed more than 20,000 lives.

(As an aside not directly related to DEIS comments, it is interesting to note that global-warming-related disasters killed far more people in 2003 than terrorists did, yet the US government is opposed to taking any meaningful action to curb global warming. This observation does prompt the DEIS-related question: Are our national priorities to sustain the systems that sustain life (and thus the economy) or to make the quickest buck possible and let future generations attempt to deal with the mess?)

In an Oct. 14 Sacramento *News & Review* article, "We're Melting," Melinda Welsh writes:

> Ultimately, there is little doubt that we are creating a future in which large portions of the Earth will be flooded routinely; huge storms regularly will cost thousands of lives and cause billions of dollars in damage; mass migrations will be likely; and famines and droughts will starve and kill large numbers of people, especially those living in the Third World.

The final should itemize and quantify all current and future MTR-related externalized costs, especially from the perspective of ecological economics, rather than the increasingly outmoded, traditional field of economics (which condones industries externalizing costs onto society as a whole with no regard for ecological reality).

From the *Stanford Report*, December 1, 2000:

> How much is an ecosystem worth?
>
> It's easy to put a price tag on timber harvested from forests or copper mined from the ground, but can we put an economic value on the less tangible services ecosystems provide, such as water purification and flood control?
>
> A group of 30 scientists, lawyers, conservationists, economists and policymakers recently came together at Stanford to discuss novel ways to market "ecosystem services" with the ultimate goal of protecting the ecosystem itself.
>
> ...ecosystem services are the processes through which natural systems support human life by purifying air and water, detoxifying and decomposing waste, renewing soil fertility, regulating climate, preventing droughts and floods, controlling pests and pollinating plants.
>
> Watersheds may be among the most marketable of all ecosystems, according to several panelists, because they provide essential services such as water purification and flood control.

11-9-2

In "The Value of the World's Ecosystem Services and Natural Capital," Robert Costanza et. al (http://csf.colorado.edu/ISEE/ecovalue/) write:

> The services of ecological systems...are critical to the functioning of the Earth's life-support system. They contribute to human welfare, both directly and indirectly, and therefore represent part of the economic value of the planet. For the entire biosphere, the value (most of which is outside the market) is estimated to be in the range of US $16-54 trillion per year, with an average of US$33 trillion per year. Because of the nature of the uncertainties, this must be considered a minimum estimate.
>
> Historically, the nature and value of Earth's life support systems have largely been ignored until their disruption or loss highlighted their importance. For example, deforestation has belatedly revealed the critical role forests serve in regulating the water cycle – in particular, in mitigating floods, droughts, the erosive forces of wind and rain, and silting of dams and irrigation canals. Today, escalating impacts of human activities on forests, wetlands, and other natural ecosystems imperil the delivery of such services.

Many of the human activities that modify or destroy natural ecosystems may cause deterioration of ecological services whose value, in the long term, dwarfs the short-term economic benefits society gains from those activities.

We believe that land use and development policies should strive to achieve a balance between sustaining vital ecosystem services and pursuing the worthy short-term goals of economic development. 11-9-2

Short-term profit for a handful of individuals comes at great long term cost to all of us and our children and their children. Can't the EIS at least give us a total accounting of the externalized costs associated with MTR? If not, why?

Flooding

I fear for my life and my family's life when it rains. I think of ways to run for the hills for my life, from the floods caused by strip mining. I plan to keep my family pictures close to me so that I can save them. –Patsy Carter (see above: "Comments from individuals.")

As a family we use to love to sit on my front porch and watch a storm come and go. Now it terrifies us to see a storm come. When the rains start everyone gets scared of what going to happen next? If it's raining no one in our house sleeps. My daughter at 9-years-old is constantly worried with the mining going on around us… She knows what affect MTR, valley fill and ponds are having on us. Yet the college-educated scientist is still looking for the reasons we are all getting flooded so horribly, so often. –Maria Pitzer (see above: "Comments from individuals.")

Several agencies (WVDEP, OSM, ACOE and USGS) have done the studies, which support both common sense and historical fact. Denuded landscapes cannot manage water the way intact ecosystems can. Deadly disasters related to the denuding of forests (and heavier storm events linked to global warming), which can be likened to the deforestation associated with MTR, recently have been garnering headlines: mudslides after the wildfires in California; landslides and floods in the Philippines and Thailand. Remember, too, in West Virginia our national forests were established to ease the flooding that ravaged the state after it was clearcut in the early 1900s. MTR is the ultimate clearcut. Simply put, MTR exacerbates flooding. 17-1-2

You've got the first hand accounts from people who have commented directly on the DEIS and from individuals' comments contained within this document. You've got the news stories. You've got the studies. And you've got your politically-motivated, ecologically-ridiculous recommendations. What you don't have is documentation of the social and cultural toll of MTR-exacerbated flooding.

Since 2001, 15 people have died in floods in southern West Virginia. (This figure does *not* include the two people who died in the widespread floods of mid-2003, which occurred both outside and inside MTR regions.) Coalfield residents *know* some of the recent flooding is directly attributable to the surface disturbances and valley fills upstream from their communities. The clean up and repair costs for the floods that victims see as clearly linked to MTR (and virtually unregulated logging) has topped hundreds of millions of dollars--an externalized cost which should be reported in the EIS.

Families living near MTR operations and/or coal sludge impoundments have told us (groups like Coal River Mountain Watch and the Ohio Valley Environmental Coalition) that *every* time there is a heavy rain happening or predicted, they worry excessively. It is no rural myth that some children and their parents will sleep—well, attempt sleep—in their clothes when a heavy rain is happening or predicted. Some children feign illness if the rain comes early on a school day—they don't want to be separated from their parents should the floods come. Some people keep their car trunks packed with precious possessions, such as family photographs, just in case they should have to flee for their lives as water rises. The constant fear and lack of a feeling of security must take a toll on people's health. The anger too, at the coal companies' denial for any blame, must affect health. Families may suffer and break apart under the strain. These are social and cultural effects of MTR that the EIS must examine.

In June 2003, a deluge poured off a mountaintop removal site above the 50-year-old home of Maria Pitzer. The operation started above her home a couple of years ago.

The Charleston *Gazette* reported:

> Ten miles away, Maria Pitzer had problems of her own. It had barely begun to mist rain, and suddenly the creek in front of her house rose two feet.
>
> Of course, the creek hadn't been itself since June. That's when a heavy rain washed off a strip mine on the hill above Pitzer's 50-year-old house and slashed a ravine through her yard, 12 feet deep and 60 feet wide in spots. The floodwaters ripped her dog from his collar, and would have swept her 9-year-old daughter from Pitzer's arms if she hadn't slung the child across her shoulders and waded to safety. 17-1-2
>
> Since that day, every time that creek rises the tiniest bit, Pitzer panics for herself, her husband and her two children. This time, she suspected the mine had let off water, thinking the rain might overflow the pond. She called the state Division of Environmental Protection. What's going on? she asked. The inspector said he looked at the mine ponds. Everything seemed to be working OK, no breaks.
>
> But Pitzer has to wonder: Is this what happens when everything's working OK?
>
> "It'll be 12:30 at night, I'm laying in bed, and it'll sound like the creek's up," Pitzer said. "So I'll get a flashlight and go out, and sure enough, it will be." Rain or no rain.
>
> "That makes it hard to sleep. You never know what it [the creek] is going to do. Nothing in my life is normal anymore."
>
> Pitzer still displays her homemade sign alongside the rubble-filled ravine where her yard once was: "Stop MTR [mountaintop removal]."
>
> But, Pitzer said, "Even if they would stop the mountaintop removal right now, we'd still be dealing with it tomorrow and the day after and the day after.

"Our future is basically trashed, and it seems like nobody gives a crap."

The increased risk of flooding in MTR regions is taking a psychological—and thus physiological— toll on people, which should be documented in the EIS.

As in almost all MTR-related social and cultural impacts presented in this document, the increased likelihood of flooding for MTR regions is probably contributing to the devaluation of personal property. This also should be documented in the EIS. 17-1-2

Falling property values

Sylvester resident Mary Miller has an immaculately maintained large brick home, with hardwood floors. Her property used to be valued at $144,000 (and would be worth much more in a larger city), but she says it was recently reassessed at a $12,000 value. This home represents the life savings of Mary and her husband and was their retirement safety net--until coal dust from a near-by Massey Energy coal processing facility began coating the town. There may be other factors that have contributed to the home's devaluation, which in themselves may be linked to the encroachment of mountaintop removal (dwindling populations, school closings).

Throughout MTR regions, homes are losing value. Blasting damages properties and ruins water supplies. Potential buyers are scared away because of fears of future flooding, worries about potential coal sludge impoundment failures, coal trucks, coal dust, groundwater and surface water contamination, lost recreational areas and lost beauty and serenity. The EIS must assess property values in communities both before and after MTR operations begin. How can the EIS make an accounting of the social and cultural costs to families whose property is losing value? What does this loss of value mean for people's current financial status and that of future heirs? What does it mean for communities and their tax revenue? How much wealth and tax-base is being lost? 11-3-2

Lost culture / way of life

The life that we have always known is now non-existent. Hikes through our own land are now unsafe. We have so many slides and mining breaks. We are of Cherokee nationality and we have always been taught to live off the land. This heritage will no longer be passed down because it is being destroyed with each blast. Everyone that has a hand in allowing this mining practice to continue is allowing West Virginia and its heritage to fade away. We the people of West Virginia are going to pay the ultimate price. We have to live here after the coal is gone. The mine companies don't care to leave us in ruin and leave our people poor. Leaving for us would mean a complete change of lifestyles, something we are not willing to do... I know our rights to life, liberty and the pursuit of happiness are pretty much gone, thanks to MTR and its practices. --Maria Pitzer (see above: "Comments from individuals.")

Our children will NOT have a place and our mountain culture and heritage is being destroyed with each mountain. –Lisa Henderson (see above: "Comments from individuals.")

The Appalachian Mountain Culture is, of course, unique in the world. Mountaintop removal is destroying the landscape that created and supports that culture. THE DEIS 10-2-2

fails miserably to document and make recommendations to abate this loss. The agencies in charge of creating a valid scientific EIS on MTR must make every effort to exhaustively study and quantify the social and cultural impacts of mountaintop removal. At the very minimum, the social and cultural effects of MTR removal listed herein must be taken into account in the final EIS. The final EIS recommendations must accurately reflect these effects and must include recommendations for actions that will relieve and eliminate the negative social and cultural impacts of mountaintop removal / valley fill coal mining.

Cultural continuity is in jeopardy because of MTR. Where MTR operators have already completely bought out/driven away entire communities, there the local culture is dead. Where culture dies, so dies the knowledge of previous generations: how to cane a chair, how to build a fiddle, how to weave a basket, how to harvest ginseng, medicinal uses of plants...the list could go on and on.

Some cultural impacts associated with MTR:

- Destruction of communities;
- Displacement of families with ancestral ties to land and community;
- Loss of free access to cemeteries (all known family cemeteries should be identified and registered);
- Loss of the connection with ancestors and future generations;
- Loss of community history;
- Loss of gardens (some have been ruined by sludge spills, some people are forced to leave the land where they once gardened) and associated loss of income (have to purchase more food);
- Loss of hunting and fishing grounds, and associated loss of income (have to purchase more food);
- Loss of harvestable understory herbs (ginseng, black cohosh, ramps, etc.) and associated loss of income-supplements and medicinal remedies;
- Loss of independence (the loss of harvested forest products (the "second" paycheck) for the family to consume could increase the need to make more money);
- Loss of traditions that instill honor and pride and self-worth;
- Loss of biological diversity and uses of that biodiversity by locals;
- Loss of soil and seedbank essential to maintaining biodiversity used by locals;
- Loss of hiking trails, rock climbing areas;
- Loss of health related to lessened physical activity;
- Loss of streams for children to play in;
- Loss of sense of spiritual connection to the land, or sense of belonging;
- Loss of renewable timber harvest and orchards and associated loss of income;
- Loss of knowledge base of traditional skills developed over generations (herbal medicine knowledge and other learned skills);
- Heightened stresses upon individuals and communities;
- Loss of property value;
- Loss of peace of mind (worry and fear and anger over contamination of water, air; falling property values; flooding; coal trucks; future);
- Loss of sleep (worry, fear, anger);

10-2-2

- Loss of sense of awe that comes from gazing at night sky (MTR operations can be a source of light pollution);
- Loss of quiet, which is very important for some people in terms of both their health and spiritual wellness;
- Loss of beauty and landscape as source of inspiration for art, music, prose and poetry;
- Loss of faith in democratic process / political system;
- Rise in fear of intimidation (fear of organizing via door-to-door tactics; fear of expressing one's opinion openly);
- Infringement upon right of free speech (fear of expressing one's opinion openly due to intimidation);
- Rise in health impacts for individuals and entire communities, with the possibility that some are suffering from post-traumatic-stress syndrome (noise and worry of blasting, worry and fear and anger over contamination of water, air; falling property values; flooding; coal trucks; future);
- Dashed ideals (after endlessly dealing with non-caring regulators and bought-and-paid-for politicians, peoples' beliefs in the founding principles of the nation are eroded);
- Loss of ability to insure homes and other property for flooding or blasting damage as insurers opt out of providing that coverage.

10-2-2

Sludge impoundments / blackwater spills

Living near a coal waste impoundment not only depreciates the value of the property for the home owner, or puts the groundwater supply into question, or anxiety during heavy rain periods, thinking this may break, but it devaluates life itself --Walter Young (see above: "Comments from individuals.")

Fear, anxious, panicky, afraid – these are a few words I use to say how I feel about coal waste impoundments. When the TV or radio gives a flash flood warning you wonder if you are going to be alive the next minute or not. If it is going to be another Buffalo Creek or Martin County. You wonder what the coal companies are releasing from the coal impoundment in the water tables that you are drinking and why are they so secret about these coal impoundments. --Geneva Runyon (see above: "Comments from individuals.")

While not all coal sludge (or coal waste) impoundments are associated with MTR, the EIS should take note of which are and examine the social and cultural effects upon coalfield residents who live near these lakes of MTR coal waste.

As with the flooding issue, fear and worry are big factors affecting people and communities. Questions that people report asking themselves include: Should I keep my kids out of the streams (due to the frequency of blackwater spills and potential for the water/streambed to be contaminated with the chemicals that are in sludge impoundments)? Will the impoundment overflow if this rain keeps up? What chemicals are leaching out of the impoundment into the groundwater and so into my well water? Should I be buying our drinking water? Are there really tanker trucks secretly dumping who-knows-what into the impoundment up there (an oft-repeated coalfield rumor)? Where would we go if there was a failure like the one in Martin County, Ky.? Could we survive a failure like that?

17-2-2

Situations like the ones detailed in the three news articles below are repeated frequently in MTR regions. People's concerns for their health and safety—their very lives—are justified, yet the DEIS does not report nor quantify the toll on people's health and well-being.

Coal wastes spill into waterways; Pipe ruptures at Kentucky plant; fish killed
By Roger Alford, Associated Press, April 11, 2002

PIKEVILLE - Nearly 135,000 gallons of coal wastes spilled into streams in eastern Kentucky on Wednesday after a pipe ruptured at a Pike County coal processing plant, officials said.

A plume of black water 7 to 8 miles long was responsible for a large fish kill on Long Fork and Big Creek, and forced cities along the Tug Fork of the Big Sandy River to close water intakes during the night.

"The intakes will stay off until environmental officials tell us it's OK to turn them back on," said Bill Davis, emergency service director for Mingo County.

"This is bad, but it's nothing compared to the severity of the previous one."

The previous spill, which occurred Oct. 11, 2000, involved more than 300 million gallons of coal sludge from an impoundment owned by Martin County Coal, a subsidiary of Massey Energy.

The sludge clogged streams and turned more than 60 miles of the Tug Fork black.

Joe Schmidt, spokesman for the Kentucky Department of Environmental Protection, said the latest spill was the result of a pipeline break about 11:30 p.m. Tuesday at Sidney Coal Co., also a subsidiary of Massey Energy.

The pipe carried liquid waste, primarily dust and particles washed from processed coal before shipping to power plants. The waste is a gritty, tar-like substance that also contains chemicals used in the cleaning process.

Katherine Kinney, a spokeswoman for Massey, said the company shut down the processing plant as soon as the rupture was discovered.

"We are still investigating, but we don't know why it broke," she said.

Charles Parsley, superintendent of the Kermit, W.Va., water plant, said an employee saw sludge in the river Wednesday afternoon, about 12 hours after the spill.

The brunt of the bank-to-bank plume arrived at Kermit at nightfall after a 20-mile trip from Long Fork. Other towns downstream were being notified of the spill, but it was not immediately clear whether they'd need to turn off water intakes.

Louisa and Fort Gay, W.Va., would be the next cities affected.

"We're taking precautions, but this is not considered a big coal slurry spill," Mr. Schmidt said.

Biologists and conservation officers with the Kentucky Department of Fish and Wildlife Resources were monitoring the spill.

"In the Tug Fork, it probably won't kill any fish," said Kevin Frey, a state fisheries biologist. "In Big Creek, we expect a high percentage fish kill."

Ms. Kinney said the spill doesn't pose a public health danger.

Coal slurry spills into two W.Va. streams
By the Associated Press, Oct. 9, 2002

LOGAN, W.Va. - A ruptured plastic waste pipe at a Massey Energy Co. subsidiary's preparation plant sent about 100,000 gallons of coal slurry into two Logan County streams Tuesday.

State regulators ordered Bandmill Coal Co. to shut down the preparation plant until the spill is cleaned up, said Jeff McCormick, assistant director of the Division of Mining and Reclamation.

"We're going to keep them shut down until they clean up the creek," he said.

Officials at four municipal water treatment plants downstream of the preparation plant kept a wary eye on the slow-moving 6-mile-long spill, which fouled Rum Creek and the Guyandotte River.

"If the system can't handle it, we'll have to shut it down," said Elbert Smith, a worker at Logan's water treatment plant.

Coal slurry is a mixture of water, fine coal particles and other waste from washing coal to prepare it for market.

Bandmill officials notified the Department of Environmental Protection of the spill at 8 a.m. Tuesday. Agency inspectors were at the scene Tuesday afternoon.

"Massey Energy regrets that the leak occurred. We have been working to ensure our operations operate in an environmentally sound manner," said Jeff Gillenwater, a spokesman for Massey.

"Initial reports are that the spill is larger than that from the company's Independence Coal operation of last summer," Mr. McCormick said.

In June 2001, a spill at Independence Coal's Liberty Preparation Plant near Uneeda sent more than 30,000 gallons of polluted water into Pond Creek. Independence also is a subsidiary of Massey.

Feds to inspect coal-waste site
By the Associated Press, June 09, 2002

LOUISVILLE - A federal agency has agreed to inspect a Harlan County coal-waste impoundment that officials fear is overfilled and say could create a more disastrous spill than one in Martin County two years ago.

There are homes in the path of a projected slurry flood in the case of the Harlan Cumberland Coal Co. impoundment, as well as U.S. 119 and the Cumberland River, regulators said in court papers.

"There could be loss of life; there will clearly be tremendous property damage. Domestic water supplies will be disrupted," Kentucky officials said in pleadings filed in Harlan Circuit Court last month.

In October 2000, a Martin County Coal Co. waste impoundment near Inez collapsed, spilling 300 million gallons of black sludge through underground mine works. No one was killed or injured, but the sludge spread to neighboring property and spilled into nearby waterways.

Even though the state has determined the impoundment violates its permit by being deeper than allowed, regulators have been barred by the court from taking action.

As a result, the federal Office of Surface Mining has agreed to inspect the impoundment and to take "appropriate enforcement action" if necessary, the agency's Lexington field office director, William Kovacic, said in a letter Friday to Kentucky officials.

Environmentalists said OSM should have acted sooner - as soon as the state was enjoined by the court on May 20 from blocking further pumping into the 64-acre impoundment.

"This really calls into question at this point the level of commitment OSM has under this administration to implementing the law," said Tom FitzGerald, director of the Kentucky Resources Council, an environmental group that joined with Kentuckians for the Commonwealth in raising concerns about the safety of the impoundment.

Although the federal inspection is pending, OSM representatives already have visited the site with their counterparts from the state Department for Surface Mining Reclamation & Enforcement and the federal Mine Safety and Health Administration.

Mr. Kovacic wrote to Mr. FitzGerald last week that information currently available to OSM "does not establish an imminent danger" from the pond.

In an interview, Mr. Kovacic said, "We are on a very prudent, legally defensible course of action." As long as the state does not object during a five-day appeal period expected to start next week, the inspection will occur soon afterward, he said.

The government reports that have come out since the Martin County disaster have not eased peoples' fears. Instead, they have confirmed peoples' suspicions: Another disaster could happen at any time.

Report: Impoundments could fail; Federal oversight called for
By Nancy Zuckerbrod, the Associated Press, Oct. 13, 2001

WASHINGTON - The same sort of thick black sludge that covered Inez, Ky., a year ago could wreak havoc on other communities if the government doesn't take steps to prevent coal waste storage systems from failing, according to a report released Friday.

The federal government must have more oversight authority of the roughly 600 coal waste impoundments in the country, according to the National Research Council report.

After coal is washed, a mixture of coal dust, clay and dirt often is pumped into an impoundment and allowed to settle. In Appalachia, coal companies typically use an area's natural topography to form the storage basin for the waste.

The report said the failure of the basin area is a leading cause of impoundment accidents, but federal oversight of basins "has been less than rigorous." The researchers said federal agencies need to be given "clear authority to review basin design."

In Inez last year, Martin County Coal Corp. collected dirt and particles washed from freshly mined coal in a mountaintop sludge pond, but the waste escaped through a crack in the bottom of that impoundment. The 250 million gallons of sludge then flowed into an underground mine and rushed off the mountainside, covering residential property and killing fish in creeks.

The report said the gov ernment should set standards for mine surveying and mapping to ensure other impoundments are not established next to old mines, which can lead to structural problems at impoundments.

The researchers said in many instances old maps are inaccurate or missing. For example, a fire destroyed at least 30,000 mine maps at a state government building in Kentucky in 1948.

But Tom FitzGerald, executive director of the Kentucky Resources Council, said it is not enough to recommend that the government create new mapping standards. He said the council also should have recommended that coal companies be required to drill into the ground in areas where they want to construct impoundments to make sure there are no mines there.

"In all cases, you must suspect there may be problems with the accuracy of a map unless you can validate it," Mr. FitzGerald said.

Bruce Watzman, vice president for safety and health at the National Mining Association, said companies frequently use radar and seismic monitoring to check for underground mines.

"It's not as if the industry is fixed in time and not using any of these technologies," he said.

The report also recommended that the government come up with a coordinated plan for assessing the risk of impoundment failures, and it said more research into alternative waste disposal technologies is needed.

Mr. FitzGerald said he was disappointed that the researchers did not spend more time considering alternatives. "They should have undertaken that assessment themselves rather than calling for more study," he said. Alternatives to impoundments exist but coal companies steer away from them because they are more costly, he said.

Mr. Watzman disagreed, adding that there are techno logical and geological reasons coal companies often turn to impoundments.

"You can't say that there should be no more impoundments because that it isn't always viable," Mr. Watzman said.
But doing away with impoundments would make many coal country residents feel safer, said Nina McCoy, a biology teacher who lives a few miles downstream from the Inez impoundment.

"I do think they are time bombs," Ms. McCoy said. The waste "doesn't need to be kept in a water dam that is above people's houses."

Ms. McCoy said she was disappointed the research council didn't look into water quality issues related to slurry spills. The report did recommend that researchers conduct an analysis of the chemical makeup of slurry, so authorities know what kind of contaminants may be in the water supply.

States with impoundments include Kentucky, West Virginia, Tennessee, Pennsylvania, Virginia, Ohio, Alabama and Mississippi, according to the Mine Safety and Health Administration.

The most notorious coal waste impoundment collapse occurred in Buffalo Creek, W.Va., in 1972. That accident killed 125 people and injured more than 1,000, the council's report said.

Reps. Hal Rogers, R-Ky., and Nick Rahall, D-W.Va., pushed for the National Research Council study. Both said they would follow up to ensure the report's recommendations are implemented.

Implementation of the NRC recommendations, enforcement of existing mining laws...these are things citizens still await. We repeat: While not all coal sludge (or coal waste) impoundments are associated with MTR, the EIS should take note of which are and examine the social and cultural effects upon coalfield residents who live near these lakes of sludge.

Stress / Fear / Health

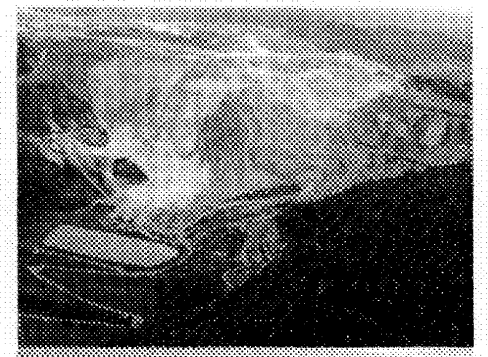
Are people living near MTR operations in fact suffering post-traumatic-stress syndrome? At the very least, they are suffering from unrelenting stresses of all sorts that take a real toll on personal, familial and community health. Some of these stresses have been detailed above: the noise, dust and damage from blasting; fear of traveling roads dominated by a long a parade of coal trucks; fears about health deterioration caused by dust, blasting noise, numerous stresses; worry and fear about the next disaster; fear about air and water and air pollution; aggravation and inconvenience of lost wells; the utter frustration and anger with most regulators and corrupt politicians…the list goes on. The EIS should examine the MTR-related toll on personal, familial and community health. 10-5-2

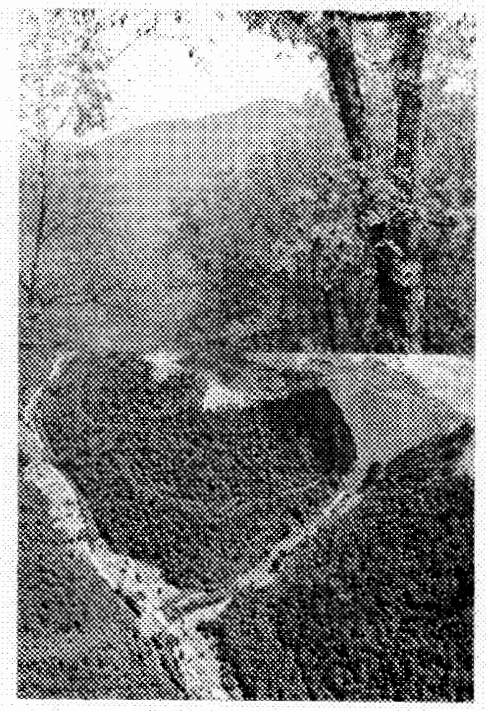
Conclusion

The preparers of the DEIS have not done their job. We repeat: The agencies in charge of creating a valid scientific EIS on MTR must make every effort to exhaustively study and quantify the social and cultural impacts of mountaintop removal. At the very minimum, the social and *current* cultural effects of MTR removal listed herein must be taken into account in the EIS. The EIS recommendations must accurately reflect these effects and must include recommendations for actions that will relieve and eliminate the negative social and cultural impacts of mountaintop removal / valley fill coal mining. 10-2-2

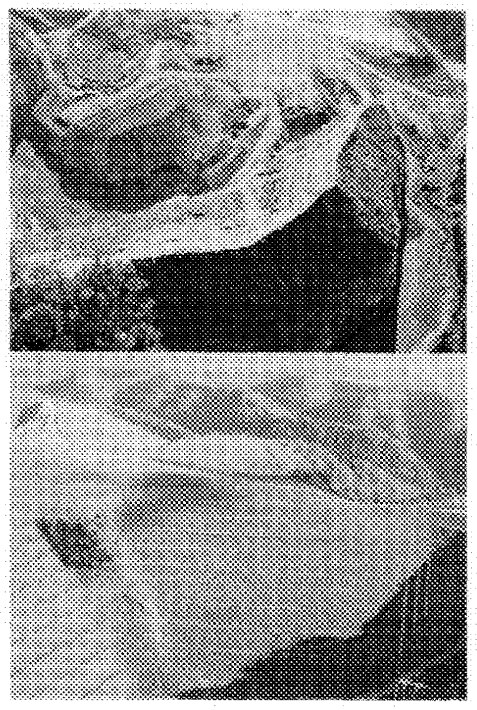
"Minimal" Impact?

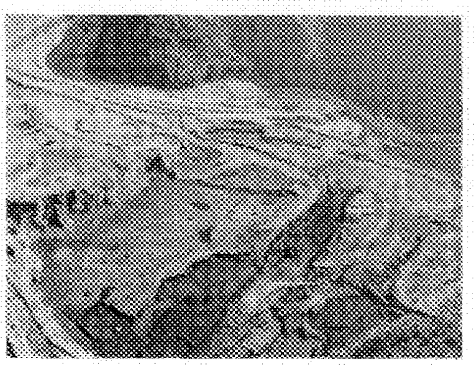
Photos of mountaintop removal / valley fill coal mining in southern West Virginia, taken by Vivian Stockman (10 pages)



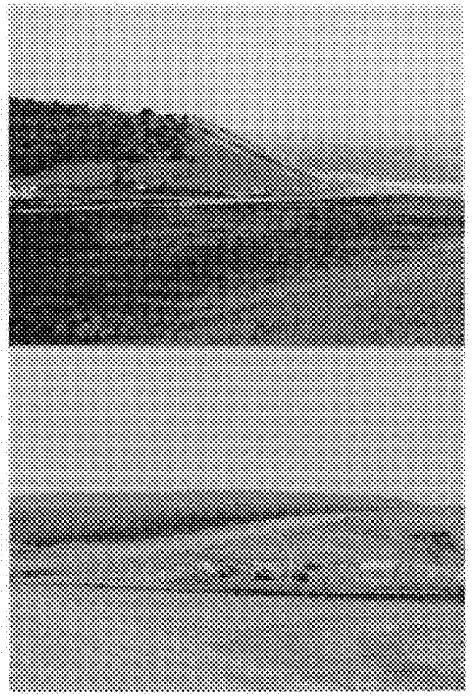


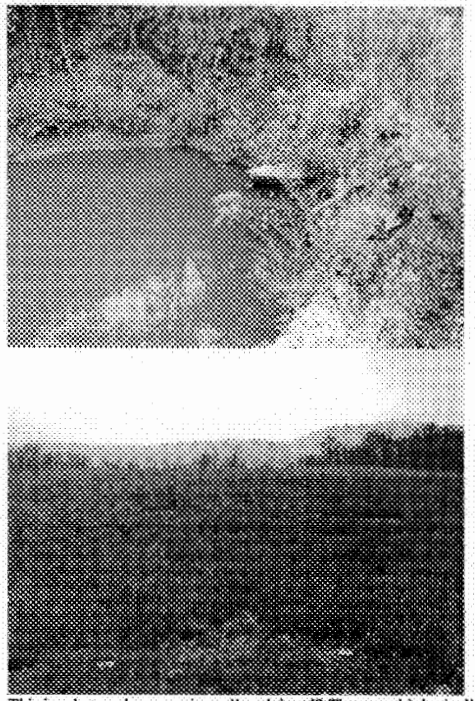
Twisted Run Golf Course on an MTR site in Mingo Co.—how many golf courses, (sinking) prisons and shopping malls (and for what population) can fit on all the MTR-devastated land already in southern West Virginia?





July 2001 flood damage below MTR sites near Dorothy, W.Va.





This is what coal companies call reclaimed? The most biologically diverse temperate hardwood forests on earth are destroyed. Take a good look at the "wetlands" coal companies claim to have created on MTR sites. Better yet, test water samples to find out what is in these waste pits.

WEST VIRGINIA LEGISLATIVE AUDITOR

PERFORMANCE EVALUATION AND RESEARCH DIVISION

Preliminary Performance Review

The Office of Explosives and Blasting

The Office of Explosives and Blasting is Not Meeting All Required Mandates

December 2002
PE02-36-268

JOINT COMMITTEE ON GOVERNMENT OPERATIONS

Senate

Edwin J. Bowman
Chair

Billy Wayne Bailey, Jr.
Vice Chair

Oshel B. Craigo

Sarah M. Minear

Vic Sprouse

Citizen Members

Dwight Calhoun

John Canfield

James Willison

W. Joseph McCoy

(Vacancy)

House Of Delegates

Vicki V. Douglas
Chair

Earnest H. Kuhn
Vice Chair

Scott G. Varner

Larry Border

Otis Leggett

OFFICE OF THE LEGISLATIVE AUDITOR

Aaron Allred
Legislative Auditor

John Sylvia
Director

Susannah Carpenter, CPA
Research Manager

Michael Midkiff
Senior Research Analyst

Paul Barnette
Lee Ann Vecellio
Research Analysts

Performance Evaluation and Research Division
Building 1, Room W-314
State Capitol Complex
Charleston, West Virginia 25305
(304) 347-4890

WEST VIRGINIA LEGISLATURE

Performance Evaluation and Research Division

Building 1, Room W-314
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0610
(304) 347-4890
(304) 347-4939 FAX

John Sylvia
Director

December 15, 2002

The Honorable Edwin J. Bowman
State Senate
129 West Circle Drive
Weirton, West Virginia 26062

The Honorable Vicki V. Douglas
House of Delegates
Building 1, Room E-213
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0470

Dear Chairs:

Pursuant to the West Virginia Sunset Law, we are transmitting a *Preliminary Performance Review of the Office of Explosives and Blasting*, which will be presented to the Joint Committee on Government Operations on Sunday, December 15, 2002. The issue covered herein is "The Office of Explosives and Blasting is Not Meeting All required Mandates."

We transmitted a draft copy of the report to the Office of Explosives and Blasting on December 2, 2002. We held an Exit Conference with the OEB on December 4, 2002. We received the agency response on December 10, 2002.

Sincerely,

John Sylvia

JS/wsc

Joint Committee on Government and Finance

Contents

Executive Summary 5

Review Method, Scope and Methodology 7

Issue 1: The Office of Explosives and Blasting is Not Meeting All Required Mandates 9

List of Tables

Table 1: Mandates and Performance Measures Achieved by the OEB 10

Table 2: Claims Alleging Blasting Damage 14

Table 3: Age of Open Claims 14

List Of Appendices

Appendix A: Transmittal Letter to Agency 19

Appendix B: Agency Response 21

Executive Summary

Issue 1: The Office of Explosives and Blasting is Not Meeting All Required Mandates

The Office of Explosives and Blasting (OEB) was created by Senate Bill 681 during the 1999 session of the 73rd West Virginia Legislature. In this report, the Legislative Auditor reviewed seven mandates that are outlined for the OEB in Chapter 22, Article 3a of the *Code*. Of the seven mandates reviewed, the Legislative Auditor concludes that the OEB has met and continues to meet three, 1) implementation of the pre-blast survey process, 2) education, training, examination and certification of blasters, and 3) proposal of legislative rules. However, there are four mandates which are not being met to the extent to which the OEB was created.

1. **Regulation of Blasting on Surface Mine Operations** - OEB is charged with regulating blasting on all surface mine operations. However, the majority of tasks regulating blasting operations are currently being performed by the Division of Mining and Reclamation, not the OEB.

2. **Setting of Qualifications for Individuals Performing Pre-Blast Surveys** - The OEB has set the qualifications for individuals conducting pre-blast surveys in its legislative rules. However, the primary requirement of these rules is that the individual performing pre-blast surveys undergo training from the OEB. The OEB has not initiated any training for these individuals.

3. **Maintaining and Operating a System to Receive Complaints** - The OEB has been in the process of developing a system to receive complaints. However, staffing difficulties has delayed the completion of this system.

4. **Establishing a System for the Investigation of Claims** - There is currently a significant backlog in claims alleging damage, which need resolved.

Since the creation of the OEB, there has been large turnover in the office. According to the OEB Chief, this turnover has delayed the OEB in meeting its mandates. The OEB has recently hired six additional employees to address the outstanding mandates. While the addition of six employees is a positive measure, the Legislative Auditor is not convinced that the addition of new staff will resolve the unfulfilled mandates. As a result, it is recommended that the OEB be reviewed again by the Legislative Auditor in one year.

Review Objective, Scope & Methodology

This preliminary performance review of the West Virginia Office of Explosives and Blasting is required and authorized by the West Virginia Sunset Law, Chapter 4, Article 10 of the West Virginia Code, as amended. The mission of the OEB is to enforce blasting laws and promote the protection of the property and citizens of the state of West Virginia without sacrificing economic development.

The **Objective** of this review was to determine if the extent to which the Office of Explosives and Blasting is meeting legislative mandates. The **Scope** of this evaluation covers the period from the creation of the office to present. The **Methodology** included but was not limited to interviews, conversations and correspondence with the Office of Explosives and Blasting and the Division of Mining and Reclamation. Data received from the Office included: 1) a list of all blasting related claims received by the Office of Explosives and Blasting; 2) the total number of blasters tested and certified; and 3) the total number of blast plans and pre-blast surveys. The review also included a sample of 6 claim records, and 113 pre-blast survey requests, annual reports from FY 1999 to FY 2001; and Legislative Rule, Title 199, Series 1. Every aspect of this review complied with Generally Accepted Government Auditing Standards (GAGAS).

Issue 1

The Office of Explosives and Blasting is Not Meeting All Required Mandates

The Office of Explosives and Blasting (OEB) was created by Senate Bill 681 during the 1999 session of the 73rd West Virginia Legislature. According to *Code*,

> *The Legislature declares that the establishment of an office within the division of environmental protection to enforce blasting laws pursuant to surface mining within the state of West Virginia is in the public interest and will promote the protection of the property and citizens of the state of West Virginia without sacrificing economic development.*

Of the seven mandates reviewed, the Legislative Auditor concludes that the OEB has met and continues to meet three. However, there are four mandates which are not being met to the extent to which the OEB was created.

In this report, the Legislative Auditor reviewed seven mandates that are outlined for the OEB in Chapter 22, Article 3a of the *Code*. Of the seven mandates reviewed, the Legislative Auditor concludes that the OEB has met and continues to meet three, 1) implementation of the pre-blast survey process, 2) education, training, examination and certification of blasters, and 3) proposal of legislative rules. However, there are four mandates which are not being met to the extent to which the OEB was created.

1. **Regulation of Blasting on Surface Mine Operations** - OEB is charged with regulating blasting on all surface mine operations. However, the majority of tasks regulating blasting operations are currently being performed by the Division of Mining and Reclamation, not the OEB.

2. **Setting of Qualifications for Individuals Performing Pre-Blast Surveys** - The OEB has set the qualifications for individuals conducting pre-blast surveys in its legislative rules. However, the primary requirement of these rules is that the individual performing pre-blast surveys undergo training from the OEB. The OEB has not initiated any training for these individuals.

3. **Maintaining and Operating a System to Receive Complaints** - The OEB has been in the process of developing a system to receive complaints. However, staffing difficulties has delayed the completion of this system.

4. **Establishing a System for the Investigation of Claims** - There is currently a significant backlog in claims alleging damage, which need resolved.

Since the creation of the OEB, there has been large turnover in the office. According to the OEB chief, this turnover has delayed the OEB in meeting its mandates.

Since the creation of the OEB, there has been large turnover in the office. According to the OEB Chief, this turnover has delayed the OEB in meeting its mandates. The OEB has recently hired six additional employees to address the outstanding mandates. While the addition of six employees is a positive measure, the Legislative Auditor is not convinced that the addition of new staff will resolve the unfulfilled mandates. As a result, it is recommended that the OEB be reviewed again by the Legislative Auditor in one year.

OEB Generally Meeting Mandates

The following mandates of the OEB were reviewed by the Legislative Auditor in this report:

- Regulating blasting on all surface-mining operations;
- Implementing and overseeing the pre-blast survey process;
- Maintaining and operating a system to receive and address questions, concerns and complaints relating to mining operations;
- Setting the qualifications for individuals and firms performing pre-blast surveys;
- The education, training, examination and certification of blasters;
- Proposing rules for legislative approval; and
- Establishing a system for the filing, administration, and resolution of claims.

The OEB has met and continues to meet many of these mandates. Table 1 below shows the mandates which are currently being met by the OEB as well as performance measures.

Table 1
Mandates and Performance Measures Achieved by the OEB

Mandates	Performance Measure
Implementation of Pre-Blast Survey Process	The OEB houses and maintains a database of over 17,000 pre-blast surveys. Nearly 9,000 of these were received and reviewed by the OEB; the remaining surveys were received by Mining and Reclamation prior to creation of the OEB.
Examination of Blasters	Since March 2001, the OEB has tested 150 individuals, of which 79 have passed. This is comparable to activity in other states with similar programs.*
Proposing Legislative Rules	The OEB has legislative rules on file with the Secretary of State's Office (rule 199CSR 1), which address all the items of §22-3A-4.

*Passed/fail rate for applicants is comparable when factors such as number of tests per year and the number of individuals failing and retesting during a year are considered.

However, there are four mandates which are currently not being met satisfactorily by the OEB. First, *Code* requires the OEB to regulate blasting on all surface mine operations. This function is currently being performed by Mining and Reclamation, not OEB. Second, the OEB has not yet set qualifications for individuals conducting pre-blast surveys. Third, the OEB's system for receiving and tracking complaints is not yet fully functional. Finally, the OEB has a large backlog of claims alleging blasting damage which need to be resolved.

The Regulation of Blasting on Surface Mine Operations Has Not Been Transferred to OEB from Mining and Reclamation

The Division of Mining and Reclamation, not the OEB, is currently regulating blasting activities on surface mine operations. According to Mining and Reclamation:

> *Today, 82 inspectors working for DMR, respond to blasting complaints and review all blasting related documentation for compliance with the regulations. If the citizen is claiming damage from blasting, the complaint is forwarded to OEB for further investigation. If the complainant is not claiming damage and the company is in compliance with the regulations, a complaint report is filled out and sent to the complainant by DMR inspectors. All other blasting activities in the field are enforced by DMR inspectors. OEB now reviews and approves pre-blast surveys and conducts testing for blasters certifications.*

This contradicts the requirements of the *Code*, which states in part, i*The duties of the [OEB] shall include...regulating blasting on all surface mining operations.*i

The OEB is Not Currently Training Those Performing Pre-Blast Surveys

According to §22-3A-3(J) of the *Code*, the OEB is charged with, i*Setting the qualifications for individuals and firms performing pre-blast surveys.*i Furthermore, according to 199 CSR 1.3.9a.2,

> *The office shall develop a list of individuals who have exhibited ability by past experience to perform pre-blast surveys. Provided, however, attending a training course*

administered by the office on pre-blast surveys shall meet the previous experience requirements.

The OEB indicated that it had not yet started training for individuals performing pre-blast surveys, nor do they maintain a list of qualified individuals.

However, when asked about the performance of this task, the OEB indicated that it had not yet started training for individuals performing pre-blast surveys, nor do they maintain a list of qualified individuals.

OEBís System for Receiving and Tracking Complaints Is Not Yet Fully Functional

The OEB is currently in the process of developing a complaint tracking system. According to the OEB,

> *The benefit to the citizen is ìgovernment in one roomî. Any person within DEP could take a complaint or question and submit that inquiry, electronically, to the office responsible for that program. The citizen would no longer be transferred from one office to another and tell the same story over and over. The offices gain a complaint tracking system for determining the status of a complaint, and works on the front-end of the complaint process and automatically feeds information into the existing computer system that tracks conclusions of investigations.*

However, this system is still being tested and is not ready for statewide implementation.

OEB has a Backlog of Claims Waiting for Resolution

The OEB is currently reviewing those claims that involve property damage; all other claims are investigated by Mining and Reclamation. With regards to the claims that involve property damage, the OEB describes the process for claim resolution as follows:

1. If an owner suspects damage has occurred, the office conducts a thorough investigation to determine the merit of the damage claim.

2. The owner then is given the option to file a claim with the coal companyís insurance, file a claim with the homeownerís insurance carrier, withdraw the claim, or participate in the OEB claims and arbitration process.

3. If the owner wishes to file a claim through the OEB, the owner is offered a chance to meet with the coal company to attempt to resolve the issue.

4. If the meeting proves unsuccessful, the owner may request to proceed with a claim. If the owner proceeds with the claim, it is referred to the claims administrator.

5. After receiving OEBís determination of merit, the claims administrator assigns an adjuster to the claim. The adjuster investigates the claim and relays the finding to the claims administration for a final determination, if the damage is blasting-related.

6. The OEB, in conjunction with the American Arbitration Association, will maintain a list of arbitrators, compiled with the assistance of the environmental advocate and coal industry representatives. The parties will chose an arbitrator and a final determination of the claim will be made.

The OEB uses a spreadsheet to track claims. This spreadsheet is currently incomplete, therefore, the Legislative Auditorís Office is unable to determine exactly how long it takes to resolve a claim or to make any estimates regarding how long it will take to resolve all open claims. In addition, a sample of six cases from the spreadsheet revealed several dates that were inaccurate. Moreover, the spreadsheet has inspectors assigned to open claims that are no longer with the OEB. This leads the Legislative Auditor to conclude that the spreadsheet is not completely reliable.

Although portions of the OEBís spreadsheet are deficient, it is the only summarized detail of claims that is currently available to the Legislative Auditor. The spreadsheet, while incomplete, does adequately represent the current status, whether open or closed, of all claims. As of November 2002, the OEB spreadsheet showed 202 claims alleging blasting damage. According to OEB records, 39 (19%) of the 202 claims have not been assigned to an inspector yet. Of the 202 claims, 54 (27%) have been withdrawn, settled, or terminated, without the necessity of the claims administrator. Of the 148 open claims, only 5 have been sent to the claims administrator for a resolution. With respect to these 5 claims, the OEB has stated the following:

Of the 148 open claims, only 5 have been sent to the claims administrator for a resolution.

> *The claims administrator has verbally responded that five claims have been completed. OEB has reviewed, for format and completeness, a draft version of one of the reports and commented to the administrator. Final reports on the five completed investigations are expected soon.*

Table 2 shows the disposition of claims, while table 3 shows the age of open claims.

Table 2 Claims Alleging Blasting Damage		
Disposition	**Number of Claims**	**Percentage of Total**
Open Claims	148	73%
Closed Claims:		
Withdrawn	43	21%
Settled	2	1%
Terminated*	9	4%
Total Claims	**202**	**100%****

* Claims may be terminated based on lack of jurisdiction, failure by the claimant to respond to contact attempts or failure by the claimant to sign necessary forms for continuing the process.

** Percentages may not add up to 100% due to rounding.

Table 3 Age of Open Claims*	
Less than 1 year old	77 claims (52%)
From 1 to 2 years old	58 claims (39%)
Older than 2 years**	8 claims (5%)

*Based on date received by OEB

**Five open claims contained no date indicating the date the claim was received

As can be seen in Tables 2 and 3, there is currently a large backlog of open claims. Many of these open claims date beyond one year.

OEB Sites Staffing Irregularities as Reason for Delays in Meeting Mandates

According to the Chief of the OEB, turnover within the OEB and the delegation of other duties to remaining staff has delayed the OEB in meeting

mandates.

> *During calendar year 2000, my staff consisted of four individuals that were temporarily assigned from the Office of Mining and Reclamation (OMR) to assist in the formation of the Office of Explosives and Blasting (OEB).*

Of those four individuals, none are currently with the OEB. One individual passed away in February 2001. One individual left the OEB in August 2001, one resigned after much illness in December 2001, and the fourth (an administrative assistant) passed away in October 2002.

Even though the OEB has funding for 15 employees, the average number of employees within the office since its creation has been seven.

Furthermore, the OEB hired five inspector specialists in January 2001. The OEB states that funding concerns prevented the hiring of the specialists before January 2001. Of the five specialists hired in January 2001, four are no longer with the OEB. Even though the OEB has funding for 15 employees, the average number of employees within the office since its creation has been seven.

Effects of Unmet Mandates

As noted earlier, Mining and Reclamation is currently performing all regulatory tasks for blasting on surface mining activities. Because the majority of tasks currently performed by the OEB were previously conducted by Mining and Reclamation (blast plan review, pre-blast survey, investigation of claims, etc.), it must be concluded that the intent of creating the OEB was to change the desired outcome of the process. To continue to perform these tasks through Mining and Reclamation violates the very intent of the law and the Legislature.

In addition to the duties that are currently being performed by Mining and Reclamation, the OEB has not met its requirement to train individuals conducting pre-blast surveys. Because the OEB has not initiated the training of these individuals, it could put both the public as well as coal companies at risk. Although the contents of a pre-blast survey are contained in the *Code*, the quality of the pre-blast surveys could suffer if an unqualified individual completed them. For example, a coal company could eventually be liable for a fraudulent claim if the conditions of the structure were not properly documented. Likewise, in a converse situation, if the structure were not properly documented, an individual may have delays or difficulty receiving compensation for damage inflicted by blasting.

With regard to backlogged claims, many individuals are currently waiting for the OEB to address outstanding claims. As was previously stated, less than one-third of all claims have been resolved. Some of these claims have been open since the creation of the OEB in 1999. Citizens with open claims

could be living in hazardous conditions due to damage sustained in a blasting incident. In addition, the property values of individuals waiting for the resolution of claims could be effected until the damage of the property is corrected.

OEB Hires New Employees to Accomplish Mandates

The OEB has recently hired additional employees to address outstanding mandates. According to the OEB,

> *In January 2002, [Employee A], a mining engineer with blasting experience, was hired...to assume direct responsibility for the blaster certification program and the pre-blast survey review program. [This individual] was also directed to evaluate the pre-blast survey program and develop surveyor training based on the results of that evaluation. The evaluation that [this individual] was charged with has been completed and a new pre-blast survey policy and procedure will be implemented this month (December 2002) with a new form to bring consistency to the program. A training program will begin in February 2002 and will be consistent with the new policy and procedure.*

To address the claims which have been backlogged, the OEB recently hired six additional inspector specialists.

To address the claims which have been backlogged, the OEB recently hired six additional inspector specialists. However, the Legislative Auditor's Office is not convinced that the OEB will be able to retain these employees. In January 2001, the OEB hired five inspector specialists. Of these, two took demotions to return to their positions within Mining and Reclamation, and two took promotions to return to Mining and Reclamation. Also, despite the fact that the OEB has been investigating claims since August 2001, the OEB has never determined exactly how long it takes to investigate a claim. According to the Chief of the OEB,

> *I have not had the opportunity to calculate the exact number of days needed to complete an inspection. Until recently, field specialists have been assigned other duties of the office and may inaccurately indicate the true time frame for investigation. Each investigation is different, in that more information may be needed for one investigation than the other may, but as the specialists become more experienced, the investigation time should only improve. Also, many of the backlogged claims investigations have been started, but not completed because that person is no longer with OEB.*

Without a knowledge of the amount of time necessary to complete a claim investigation, the Legislative Auditor is unable to determine with accuracy to tell whether or not a total of nine (9) inspector specialists will be able to completely review all backlogged claims as well as all incoming claims.

Conclusion

With regard to satisfying established mandates, the OEB has not accomplished four significant areas:

1. Enforcement of blasting procedures on surface mine activities;
2. Training for individuals conducting pre-blast surveys;
3. Maintaining and operating a system to receive complaints;
4. Timely investigation of claims.

Without the fulfillment of these mandates by the OEB, the public is not only at risk, but potentially in many cases, has claims which are not being resolved. Although a lack of staff and staffing irregularities can account for many problems, the Legislative Auditor's Office is not convinced that the addition of staff will resolve the unfulfilled mandates.

Recommendations:

1. ***The Legislative Auditor's Office recommends that the OEB be continued and reviewed again by the Legislative Auditor in one year.***

2. ***The Legislative Auditor's Office recommends that the OEB standardize the process for tracking claims. This process should require that information on claims be entered into a database in a timely manner.***

Appendix A: Transmittal Letter to Agency

WEST VIRGINIA LEGISLATURE
Performance Evaluation and Research Division

Building 1, Room W-314
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0610
(304) 347-4890
(304) 347-4939 FAX

John Sylvia
Director

December 2, 2002

Mike Mace, Chief
Office of Explosives and Blasting
West Virginia Division of Environmental Protection
10 McJunkin Road
Nitro, WV 25143-2506

Dear Mr. Mace:

This is to transmit a draft copy of the Full Performance Evaluation of the Office of Explosives and Blasting. This report is scheduled to be presented at the Sunday, December 15, 2002 interim meeting of the Joint Committee on Government Operations. It is expected that a representative from your agency be present at the meeting to orally respond to the report and answer any questions the committee may have. If you would like to schedule an exit conference to discuss any concerns you may have with the report between December 3, 2002, and December 6, 2002, please notify us. We need your written response by noon on December 10, 2002 in order for it to be included in the final report.

We request that your personnel treat the draft report as confidential and that it not be disclosed to anyone not affiliated with your agency. Thank you for your cooperation.

Sincerely,

John Sylvia

John Sylvia

Appendix B: Agency Response

Office of Explosives and Blasting
[illegible]
Nitro, West Virginia 25143
Telephone Number: [illegible]
Fax Number: [illegible]

West Virginia Department of Environmental Protection

[illegible]
Director

[illegible]
Cabinet Secretary

December 10, 2002

John Sylvia, Director
West Virginia Legislature
Performance Evaluation and Research Division
Building 1, Room W-314
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0610

Dear Mr. Sylvia:

Thank you for the opportunity to respond to the preliminary performance review conducted on the Office of Explosives and Blasting. Our response is enclosed.

Many of our mandates are being accomplished and this office continues to work diligently to address all the directives set forth by the legislature.

I look forward to being present during your presentation to answer any questions that members of the committee may have.

Sincerely,

Mike Moore
Chief

"Promoting a healthy environment."

West Virginia Department of Environmental Protection
Division of Mining and Reclamation
Office of Explosives and Blasting

Legislative Audit Response

The Office of Explosives and Blasting (OEB) welcomes the opportunity to respond to the draft copy of the performance evaluation completed by the Performance Evaluation and Research Division of the West Virginia Legislative provided to us on 12/5/02. The OEB response will identify all the mandates and the actions taken to fulfill those requirements. The OEB will explain the data management system used by the office. The OEB will explain the personnel issues associated with the office and the accomplishments of the office despite the adversity. The OEB will also outline the steps necessary for completing the mandates of the legislature and a schedule for full operation of the office.

We have chosen a format that responds individually to the legislative mandates in West Virginia Code §22-3A and 199CSR1.

Regulate blasting on all surface mine operations

The OEB agrees with the legislative auditors in that we are not fully regulating blasting activities on all surface mine operations. However, the following circumstances are noteworthy:

- The mining and reclamation program still has a statutory requirement to inspect blasting procedures and respond to all mining complaints.
- An OEB presence on surface mine operations has been established, admittedly, it has been in connection with damage claims investigations, assistance requests from mining inspectors, investigation in connection with federal (Ten Day Notices) and a few independent inspections based on information collected by the OEB on possible blasting irregularities;
- The OEB is developing a much needed expertise of blasting knowledge that did not exist prior to this office;
- In time, the OEB will expand its responsibilities to fully address all blasting activities on surface mines by continuing to develop trained blasting specialists.

The office will continue to address blasting activities, with progressively more routine inspections. By January 2004, our projections (identified later in this document) will allow the office to conduct routine investigations, as well as claims investigation, on a regular basis.

Implement and oversee the pre-blast survey process, as set forth in section thirteen-a, article three of this chapter.

A new emphasis was placed on pre-blast surveys with passage of Senate Bill 681. Surveys were deemed a crucial part of the newly created damage claims process and homeowners were encouraged to have surveys completed.

During the early developmental stages of the office, a number of items became apparent concerning the pre-blast survey process:

- Mining was moving closer to residents and more surveys were already being processed;
- Residents now had to decline a survey instead of not responding to a request;
- The survey radius was expanded, resulting in an increase in the number of surveys;
- A single reviewer in the central office reviewed all surveys and coordinated notification requirements with mining and reclamation inspectors;
- The reviewer was also responsible for training and testing blasters;
- The workload influenced the quality of the reviews;
- There was no standardized survey format making the review and quality assessment difficult. No pre-blast survey was particularly better than another but all were formatted differently;
- Review of the notification list was conducted by the mining and reclamation inspector;
- OEB only had 15 days to review surveys before blasting could begin.

With these factors in mind, the OEB began taking steps to comply with the requirements of the rule, and began a full assessment of the entire survey process to determine necessary changes needed to adequately protect the public. In the interim, changes would be implemented as situations arose and written policy would be developed based on the circumstances that necessitated change and/or any legal interpretations, when necessary. Although the basic requirements for the contents of the surveys were set by rule, responses varied by individual interpretation.

With the assistance of the Office of Legal Services (OLS), the OEB created the forms and procedures for waivers (for structure owners that did not want a survey) and affidavits (for the few cases where the owners refused all contact with the surveyors). The waiver and affidavit forms are presently being used by the industry.

On a regular basis, we continue to address new questions or circumstances concerning surveys, but a written pre-blast survey policy is now available. The supporting forms standardize pre-blast information for the first time.

The OEB collected all the existing surveys from the mining and reclamation regional offices, inventoried, cataloged, and stored them at one location. As we collected these surveys and processed new ones, an electronic spreadsheet was created to track all surveys accepted. For the first time, a simple search could determine if a pre-blast survey was available.

Presently, over 17,000 pre-blast surveys (dating back to 1987), waivers and affidavits are stored in one location. OEB has reviewed over 50% of the documents (9,242). All surveys, waivers and affidavits are maintained confidentially.

As described in the rule, OEB is now responsible for delivery of surveys to the homeowners. Prior to passage of the rule, the coal company delivered. The OEB makes every attempt to review and deliver the surveys to the owners before blasting begins.

The federal Office of Surface Mining (OSM) recently completed a five-month oversight review of the pre-blast survey review process and the associated tracking system. OSM concluded the process to comply with the federal mandates for pre-blast survey reviews.

The OEB is developing additional improvements to the process. The improvements can be implemented within the next year, depending on the availability of staff from the Information Technology Office (ITO) and include the following:

- Develop an electronic system that allows for automatic entry of survey support information data from CD/Disk provided by permittee or designee;
- Develop an electronic review, with a checklist of required information, that will automatically maintain a history of survey deficiencies and creates correction letter to permittee. This system will create an automated acceptance letter to permittee and an automated cover letter to citizen.

Maintain and operate a system to receive and address questions, concerns, and complaints relating to mining operations.

With the assistance of Information Technology Office, the OEB has created an electronic-based system called iCitizens Servicesi for receiving, responding and tracking blasting question concerns and complaints. The system was initially developed for use by OEB. As more of the DEP offices became aware of the system, it became apparent that this system could be utilized for the benefit of all the DEP. Development was slowed for this reason, but the OEB has been using the system since July of 2002 and the Logan Regional Office of DMR was included in October. Thus far, the system is working as designed. The system is increasing the efficiency in responding to the publicis concerns. In addition, DMR is saving time and effort in routing blasting complaints to the OEB and routing other complaints within the mining office. The other DMR offices will be added in the near future.

The OEB has published an informational handout entitled iCitizenis Guide to Blastingi that explains, in general terms, why mines blast, what to expect, the kinds of damage that could occur, the importance of a pre-blast survey, measuring blast vibration, the claims and arbitration process, and what to do if the citizen has a complaint.

The OEB has collected, and continues to collect, publications relating to blasting and make them available to the public through a iendingi library. The purpose is to provide as much information on blasting as possible to the public. The publications are made available to the public, at no charge, much in the same manner as a public library.

Many of the publications and OEB forms and are also available on our website.

Set the qualification for individuals and firms performing pre-blast surveys.

During our initial examination of the pre-blast survey process, the OEB noted several items concerning pre-blast surveys and the people and companies conducting them:

- Most surveys generally complied with the requirements of the code;
- No one survey was significantly better than another, but all could be improved;
- The previous review process did not meet the elevated standards reflected in the OEB blasting rule;
- Most coal companies contract the preparation of pre-blast surveys to consulting firms with expertise in performing surveys;
- The OEB has little contact with coal companies during the review process;
- Most companies have already selected a consultant to perform surveys and the OEB seldom received a request for the name of companies performing surveys;
- Consulting engineering and pre-blast surveying companies provide internal training to the individuals performing the surveys;
- The bulk of the OEB pre-blast surveyor training program needed to focus on the issues addressed by the pre-blast survey policy and standardized OEB forms;

- Standardized review of the pre-blast surveys produced a similar effect as training while the policy and forms were being developed. The industry and consultants were receptive to this approach and provided comments during the process.

The decision to prioritize improvement of surveys rather than the training of surveyors was based on the facts listed above and our belief that the creation of a pre-blast survey policy and standardized form was necessary before training could begin. It did not appear that the citizens were placed at any greater risk since:

- The OEB was continually improving the quality of the surveys through our review process;
- Most consulting companies had experienced employees performing the surveys;
- New surveyors were trained by the consulting firms before those persons could conduct surveys;
- The insurance companies that provided blasting coverage to the coal companies supplied written acknowledgement of the consulting firm or individuals completing the surveys;
- The OEB is enforcing the mandates requiring that every citizen be provided a survey.

In order to identify any potentially hazardous conditions, OEB responds to alleged damage claims within 24 hours. OEB assesses the damage claim and prioritizes if the claimant identifies any hazardous conditions. During the course of investigating blasting damage claims by the OEB, we have not observed any cases of hazardous living conditions that were a result of blasting damage.

As stated before, the OEB has completed an extensive review of the pre-blast survey process and published a detailed pre-blast survey policy. In addition, a standardized form, with itemized instructions, was developed and is ready for implementation following surveyor training. Pre-blast surveyor training is scheduled for the week of February 24, 2003.

Educate, train, examine and certify blasters working on surface mining operations.

The initial assessment of the blaster certification program caused some concerns. There was no set schedule for training or testing. Training and examination was conducted on an ias requestedi basis and occasionally conducted in a storage trailer on a mine site. Many times, insufficient space was available to properly examine the applicants. The OEB felt that any improvement made in this program would provide immediate results and we took action to increase the quality of training and testing.

- The application process was improved to provide verification of the blasteri's experience and to insure that the information was correct to avoid the potential for fraudulent information or errors on applications;
- Centralized the training location and scheduled the training dates for the calendar year for applicants wanting formalized training rather than self-study;
- Centralized the testing location, and scheduled the testing dates for the calendar year;
- Provided advanced notice to re-certification candidates;
- Added a mandatory 2 hour training session prior to administering the test that explains the blasting rules and certified blasteri's responsibilities;
- Placed more emphasis on proper blaster training and proctoring the examinations to insure that blasters actually demonstrated the required level of knowledge of a certified blaster.

Presently, there are nearly 800 certified blasters in West Virginia. This year the OEB has trained and certified 54 new blasters. The OEB currently projects that 200 blasters will re-certify annually. Re-testing is required every six years.

Other initiatives are in progress and are presently benefiting the program or have the potential for benefit in the future.

- OEB can provide a 12-hour refresher-training course. We are auditing other continuing education programs for content and approve those training programs if they meet the criteria required by the rule;

- OEB now conducts a monthly 8-hour training course for applicants for certification;
- OEB initiated a workgroup comprised of state regulators from the surrounding mining states and federal counterparts in order to compare blaster training and testing procedures and to seek common ground for granting reciprocity certification. A procedure was developed to verify if a blaster is in good standing before granting reciprocity. This process is now being utilized with Kentucky and Virginia, a direct outcome of working with this group. Standardized blaster training and testing criteria is being reviewed for development by this group.

Propose rules for legislative approval.

It is OEBís understanding that the first set of rules were created by a stakeholder group with limited input from the regulatory representatives and with no representatives from the OEB. Title 199CSR1, which contained the funding mechanism for the office, became effective April 18, 2000, but lacked provisions for adequate inspection and violation procedures, enforcement and procedural powers, civil penalty assessment procedures, blaster disciplinary procedures, and due process procedures. Revisions were made to 199CSR1, adding these provisions, which became effective May 19, 2001. Changes were also made in §22-3 to comply with the federal Office of Surface Miningís rejection of some of the language contained in Senate Bill 681. Those changes included deleting provisions that exempted the surface effects of underground mines from the blasting requirements of the statue, requiring that every owner who has a pre-blast survey be provided with a copy of the report and deleting a provision that improperly allows an owner to waive a requirement that coal companies submit information to the DEP.

The OEB implemented procedures for the review, modification and approval of blasting plans. Blasting plans are a part of every permit package proposing to conduct blasting on a mine site. Blasting may not necessarily be conducted for the purpose of recovering coal. Many operations require blasting to face-up deep mines or construct roads. In the past, many permit reviewers lacked the expertise to adequately review blasting plans. The OEB recognized that a review by a blasting specialist would immediately benefit the public. We identified this as a high priority that could be accomplished with existing the limited staff.

- A thorough review of blast plans and subsequent corrections ensured compliance with the blasting rule;
- The OEB reviews and approves all blasting plans as part of the permit review process;
- A total 198 blast plans have been reviewed by OEB since July 2001, 132 plans have been approved and the others are pending corrections;
- OEB is presently current with all permit review actions in all four DMR regional offices.

The OEB also developed and established disciplinary procedures for all certified blasters responsible for blasting on surface mine operations. These procedures identified specific circumstances where a blaster would be cited for violations. The penalties associated with blaster violations may include temporary suspension or revocation of the blasteris certification.

Establish and manage a process for the filing, administering, and resolving blasting damage claims.

Admittedly, OEB has struggled with the claims process. The process requires specially trained individuals capable of determining the merit of blasting damage claim. The primary mechanism to adequately serve the citizens in regards to blasting complaints and blasting damage claims is to have staff of investigators with the necessary expertise, knowledge, and skills to effectively investigate blasting claims. This source of specialized personnel did not exist in the DEP agency. Therefore, a training program was implemented to address the skills needed to investigate blasting claims. The skills required involve general blasting knowledge, blast design techniques, blast dynamics, blast vibration analysis, structural response, seismic monitoring methods and analysis, structural response to vibration and frequency, construction practices.

Several factors contributed to the present backlog:

- The current claims process is a first of its kind approach to provide a low cost option to blasting damage litigation. Development often required seeking legal advice from OLS and delayed the process;
- A backlog of 150 blasting damage claims existed when the OEB blasting specialists began initial investigations;
- ITO is developing an electronic notification, authorization, tracking, and invoicing system, but major delays have prevented implementation. The OEB is proceeding without the process being in place;
- The OEB lacked the required number of blasting specialists and the loss of key individuals who had technical blasting advice during the development of the office;
- OEB is currently taking action to investigate the claims, but until the new staff is sufficiently trained, the backlog will remain;
- Based on our calculations the backlog will be eliminated in approximately one year;
- All activities, with regard to blasting claims, are tracked by use of a computerized spreadsheet. This spreadsheet is intended to provide a general overview of the claim;
- All claims have a paper file that is opened when the initial blasting claim is made. The details and specifics of each claim are documented in this file.

The tracking system was developed by OEB to track milestones, provide a digital record of claims events and to provide general details of pertinent aspects of each claim. This system was not intended to be an expansive database. For the intended purposes, this system serves the office needs. However, OEB appreciates the recommendation of the auditor and plans to review the existing data system for areas of improvement.

Office to conduct study.

The office shall conduct or participate in studies or research to develop scientifically based data and recommendations. The office recognizes the reasoning for mandating this requirement. Unfortunately, staffing levels have never been adequate to devote time and effort to implement a research project. Additionally, the expertise needed to fully conduct a research project and sufficiently analyze the results is beyond the capabilities of the current OEB staff. However, once the staff is trained and the backlog of existing claims is eliminated, the resources should be available to conduct research projects. All seismic information we are currently collecting is being stored for reference and future use.

The surrounding states blasting workgroup that OEB has developed provides the opportunity to evaluate research projects in conjunction with these experts.

This is an important issue and although there is no research to report, the intent is not taken lightly by the office.

OEB plan to eliminate backlog of claims.

An analysis was made to evaluate the two aspects of the claims process, the investigation of incoming claims and the elimination of the backlog of current claims. A review has been made of the claims database to estimate the levels of completeness of the current claims backlog and to predict the requirements necessary to process this backlog. Historical data was reviewed to forecast the manpower to stay current with incoming claims and to assist in the other mandates of the office where blasting specialist are skills utilized.

- The OEB currently has received 211 blasting damage claims;
- There have been 58 claims that have been investigated and closed by OEB, 22 claims investigations are complete, 82 are assigned, and at various levels of investigations, and 39 claims are unassigned and awaiting investigations;
- A total of 5,465 man hours have been spent by specialists investigating claims since July 2001;
- Using time and activity reports, The OEB estimates 56.0 man hours to fully investigate and complete one blasting damage claim;
- The OEB estimates it will take 3.34 trained blasting specialists to investigate and finalize the current backlog in one year;
- Based on current data OEB predicts that there will be approximately 100 claims submitted annually;
- In order to investigate these damage claims it will require 5.11 blasting specialist to stay current;
- In summary, to stay current with the blasting damage claims and to eliminate the current backlog the OEB will require 8.45 trained blasting specialists.

OEB will implement a training program involving a mentoring aspect. The experienced blasting specialists and the technical staff will train the new specialists. This will involve the rotation of the new specialist between training and claims investigation for increased efficiencies in the overall processing of claims. We feel that the efficiencies we can realize from the mentoring approach with the new hires will result in faster processing of the claims than we have historically encountered, without losing investigation resources, while the new inspectors are being trained.

By following this plan to eliminate the backlog, we should be in a position in one year to shift our blasting specialist resources to absorb the blasting duties that the mining and reclamation inspectors are currently providing.

Staffing Issues.

As noted by the auditors, staffing problems plagued OEB since its creation. The loss of employees dramatically effected the office and constantly forced changes in our priorities. Losing key personnel, especially the training staff, at the critical stages of development crippled, not only the training program, but also shifted workloads and influenced employee morale.

During the early stages of development, four persons temporarily transferred to the OEB from the Office of Mining and Reclamation (OMR). The assistant chief/ trainer, a blasting expert, also had years of environmental regulatory experience. The supervisor/ assistant trainer also had a great deal of experience in blasting and regulatory compliance. A third individual managed the pre-blast survey and blaster certification programs. The administrative assistant provided clerical support. She also had years of experience in the day-to-day operations of the mining program.

During the creation of the blasting legislation, the mining program calculated a staff of 18 as an adequate number to operate this office. A fee of 0 cent ($0.005) per pound of explosives was recommended to fund the office. Prior to approval of the rules, a reduced fee of ° cent ($0.0625) per pound decreased the staff to 15 persons. Fee collection began in August 2000, but budget issues within the mining office prevented hiring field employees until January 2001.

The first blasting specialist transferred from the mining program. All had regulatory experience, including blasting compliance knowledge, but required extensive training to fully comply with new job requirements. However, during their initial training, the assistant trainer passed away. The assistant chief/ trainer was incapacitated due to an illness to a degree that progressive absences finally resulted in a six-month absence from work. The illness finally caused the employee to leave the office without returning to work. Due to limitations of the salary and DOP hiring practices, replacement for these individuals was hampered. The delays incurred in staffing these positions resulted in loss of technical guidance for the office.

The trainers also shared management and development responsibilities. Their loss left only a partially trained field staff to assume those duties. In addition, the pre-blast survey reviewer and blaster certification manager accepted a supervisory position with another state office and the field staff assumed those responsibilities.

Of the five original inspectors promoted to blasting specialists, one accepted an assistant supervisory position with the mining program, and another returned to mining with a promotion. Two of the original field specialist returned to the mining program without a loss in salary. One of the two recently reapplied to the OEB, but withdrew upon receiving a pay increase.

The recent unexpected passing of the administrative secretary created a void that is not easily filled. Debbie Jeffreys knowledge, energy, and attitude created an atmosphere of learning, cooperation, and dedication. Interviews are scheduled for early January 2003.

Despite of the staffing issues that challenged OEB, positive steps taken during the past year and pending hiring actions, will correct the deficiency of the past. Barring unforeseen events, OEB will attain full staff, for the first time, in February 2003.

- The OEB hired 3 additional blasting specialists in October 2001. Presently, two of them investigate blasting damage claims, exclusively. The other specialist reviews blasting plans in the four DMR regional offices;
- The OEB hired a blasting expert as an assistant manager and trainer in January 2002. This employee overhauled the pre-blast survey process, established creditability in the blaster certification program, and resumed blasting specialist training. This person will also administer surveyor training in February 2003;
- The OEB hired an experienced DMR employee to review pre-blast surveys and assist with surveyor training in August. Survey reviews are current and no backlog or delays are expected;
- A group of 6 new blasting specialists trainees report for work on January 2, 2003. A training program is formulated to accelerate claims investigations. Calculations by OEBis staff projects the elimination of the damage claims backlog by January 2004.

OEBis effectiveness is directly dependent on managing the conflict between satisfying program requirements and providing adequately training that develops permanent blasting experts within DEP.

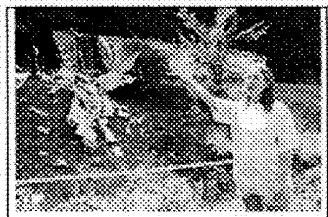
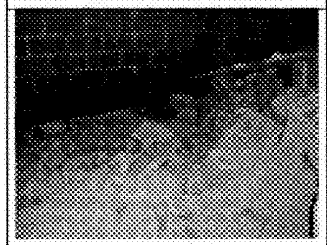
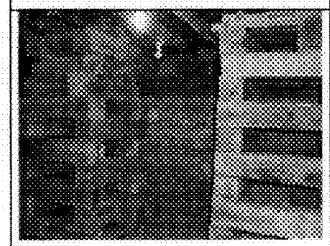
Conclusion

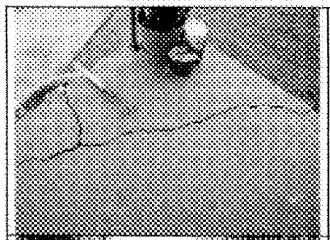
The OEB acknowledges that we are not yet fulfilling all mandates as provided in the Code. In regard to the specific concerns of the Legislative Auditor, OEB has outlined an improvement plan that will allow OEB to complete all enforcement actions by January 2004.

- Training for pre-blast surveyors is scheduled for February 2003;
- Based on our projections the backlog of claims will be eliminated by January 2004;
- The office has been operating a system of recoiving complaints since July 2002. The DMR regional mining office will soon be joining the process. The long-term plan would include all the DEP offices.

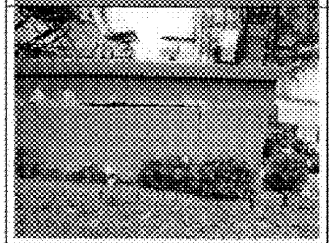
We believe that our goals are attainable and welcome a review of this office next year.

Photos of Surface Mining Blasting Effects

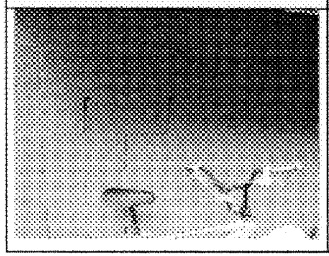
	Photo Caption: Emily Justice, who lives next door to Jerry Pinson, talked about her fears after a boulder crashed through Pinson's home. State regulators said they plan to take additional measures to fix the problem of "fly rock." From the Louisville *Courier Journal*, "Boulder from strip mine rips through Pike home; Dangling rocks threaten other residents in hollow," by Alan Maimon, Thursday, August 15, 2002.
	Debris from a Boone County, W. Va., home's foundation, part of which was reduced to rubble by MTR-related blasting.
	Supports installed by the family to try to keep their home (same home as above) from collapsing after MTR-related blasting destroyed part of the homes foundation. A WVDEP blasting inspector insists that the destruction was not caused by blasting. The family knows better.



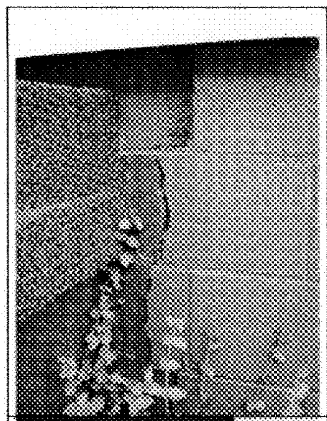
MTR-related blasting has cracked the porch of this family's Boone County home.



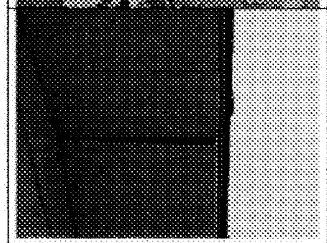
The same porch as above, side-view.



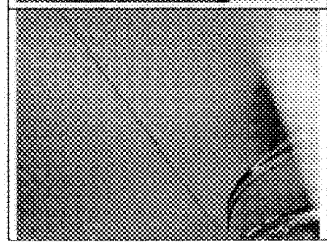
A crack in a Boon County home's foundation produced by MTR-related blasting.



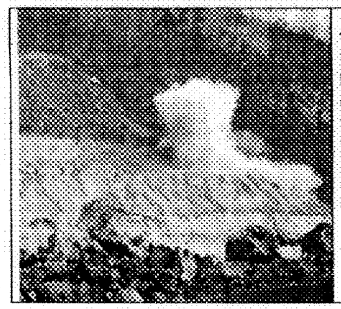
A crack in a Boon County home's foundation produced by MTR-related blasting.



A crack in a Boon County home's roofing produced by MTR-related blasting.



A crack in a Boon County home's ceiling produced by MTR-related blasting.



This photograph, submitted by Robin Bentley of Logan, reportedly was snapped by an independent trucker has drawn considerable interest from those who have viewed it personally. The person who photographed the mine blast said this particular photo contains an image of the devil's face inside the cloud of smoke and dust.

permit_id	complaint_date	complaint_comment	responsible_party_name
D000782	8/9/2001 15:00:00	Oneida Coal's mining operation caused water loss.	COASTAL COAL WEST VIRGINIA, LLC
D000782	12/10/2001 11:20:00	Large crack in earth surface (3-5 feet wide and approximately 1/2 miles long) near old Brooks Run mine, Brooks Creek near Ethelton	COASTAL COAL WEST VIRGINIA, LLC
D002182	9/12/2001 09:50:00	COAL DUST.	ELK RUN COAL COMPANY, INC.
D002182	10/29/2001 08:00:00	FIVE COMPLAINTS RECEIVED ON 10/29/01 FOR COAL DUST IN SYLVESTER, WV. HARRY RIDDLE, MANUAL ARVON, MARY MILLER, HALLINE THOMPSON, PAULINE CANTERBERRY ALL PHONED IN COMPLAINTS STATING THAT COAL DUST FROM THE ELK RUN MINE COMPLEX HAD BLOWN ONTO HOMES IN THE	ELK RUN COAL COMPANY, INC.
D002182	1/30/2002 08:00:00	HEAVY BLAST ON 1/28/02 FROM ELK RUN'S STOKER AREA.	ELK RUN COAL COMPANY, INC.
D002182	2/3/2002 04:34:00	VERY HEAVY BLAST FROM ELK RUN COAL CO.'S STOKER PLANT ON 2/3/02 @ 4:00 PM. BLAST DISLODGED FURNACE DUCT WORK.	ELK RUN COAL COMPANY, INC.
D002182	2/5/2002 11:00:00	DUST FROM STOKER PLANT GETTING WORSE OVER THE LAST TWO (2) WEEKS.	ELK RUN COAL COMPANY, INC.
D002182	2/7/2002 13:30:00	DUST ON 2/4/02 BAD. MORE NOTICEABLE DUST IN LAST TWO WEEKS. VERY HEAVY BLAST ON 2/4/02 @ 4:00 FROM ELK RUN COAL.	ELK RUN COAL COMPANY, INC.
D003582	7/3/2001 13:30:00	Springs on farm are drying up. Only run when it rains now. Springs dry up and they didn't use to, also water from springs looks black.	GLADY FORK MINING, INC.
D003582	7/11/2001 11:00:00	Garage is cracking and settling.	GLADY FORK MINING, INC.
D003582	7/31/2001 14:00:00	Well water staining everything red.	GLADY FORK MINING, INC.
D003582	10/17/2001 11:00:00	Road at Glady Fork mine is dusty and dirty. Can't keep car clean.	GLADY FORK MINING, INC.
D003582	1/15/2002 13:00:00	Coal trucks tracking mud and spilling coal onto county road.	GLADY FORK MINING, INC.
D006882	12/7/2001 09:00:00	Coal dust covering home and causing health problems.	JOALS COAL COMPANY
D018400	7/16/2001 09:00:00	House is settling and door won't open. House is over Badger Mine.	HAWTHORNE COAL COMPANY, INC.
D018400	10/26/2001 07:30:00	Yellow scum on river across from house. Could be coming from coal company.	HAWTHORNE COAL COMPANY, INC.
D018400	1/15/2002 13:05:00	Mud and coal spillage on county road.	HAWTHORNE COAL COMPANY, INC.
E003700	6/13/2001 10:00:00	Mr. Marshall's complaint was that there junk equipment and trash still on the mine site. They also said they dil not like the ditch that was being constructed through the mine site.	ALPINE DEVELOPMENT COMPANY
E004500	11/26/2001 15:00:00	Dust from preparation plant and coal traffic contaminating house.	KEPLER PROCESSING CO INC
E009400	7/30/2001 13:31:07	HOLLOW WASHED OUT ON 7-29-01 AND AGAIN ON 8-3-01. WANTS IT INSPECTED TO SEE IF BUFFALO MINING OR GAS COMPANY. *NOTE- ON 7-31-01 MR. PETERS VOICE HIS CONCERNS ABOUT WATER SEEPS BEHIND HIS RESIDENCE AS NOTED BELOW.- (11/12/01)07/30/01 IN RESPONSE TO OSM TD	BUFFALO MINING CO
E009400	7/30/2001 13:32:45	IN RESPONSE TO TDY X91-110-980-006. THE MINING COMPANY USES AN UNPERMITTED/UNBONDED ROAD. THIS ACTIVITY CREATED A SITUATION WHERE FLOODING AND RUNOFF IMPACTED CITIZEN'S PROPERTY. *VERBAL COMPLAINT OF HILLSIDE SEEPS FILED WITH R. CASERTA.	BUFFALO MINING CO
E009400	12/4/2001 09:00:55	ACCORDING TO COMPLAINANT, BUFFALO MINING CO. WAS TO PAY WATER BILL. THEY RECEIVED THEIR FIRST WATER BILL AND WERE TOLD BY BUFFALO PSD THAT THE WATER BILL WAS THE RESIDENT'S REPSONSIBILITY.	BUFFALO MINING CO
E011700	8/7/2001 16:15:00	Dust from haulroad.	BLUESTONE COAL CORPORATION
E011700	8/16/2001 16:25:00	Have not installed pump and haulroad getting dusty.	BLUESTONE COAL CORPORATION
E012500	7/16/2001 15:45:00	The hillside opposite the road from the complainant may be in danger of blowing out. A spot on the hill pushed out during recent heavy rain; this is where Martinka Coal previously repaired a slide. Complainant also concerned that the stream is constrict	MARTINKA COAL COMPANY
E012800	11/28/2001 10:05:00	Mr. O'Hara stated that his well has had reduced capacity for some time. He believes that mining has had an effect on his well.	WINDSOR COAL COMPANY
H071200	8/24/2001 09:15:04	STORM YESTERDAY WASHED DIRT OFF OF HAULROAD ONTO HIS PARKING AREA.	BANDMILL COAL CORPORATION
O000185	12/27/2001 14:52:59	DUST VERY THICK. ROLLER ON BELTLINE MAKING A VERY LOUD NOISE.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
O000185	12/28/2001 14:59:23	COMPLAINANT STATED THAT DUST FROM THE LOADOUT NEAR RILEY CAMP ON BUFFALO CREEK IS VERY BAD. ALSO STATES THAT HE WAS NOT OFFERED A PRE-BLAST SURVEY.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.

1 of 27

O000165	1/3/2002 14:11:55	DUST VERY BAD AGAIN. COMPLAINANT STATES THAT THEY TOOK THEIR CAR TO THE CARWASH LAST NIGHT (1-2-02) AND SPRAYED IT OFF AND IT WAS DUSTY AGAIN TODAY.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
O000384	8/28/2001 14:40:00	County road dusty.	BLACK WOLF MINING COMPANY
O000384	1/22/2002 08:27:00	Dirt and mud on county roads. (#8 and #9 Gary) Also overweight coal trucks going through community.	BLACK WOLF MINING COMPANY
O000384	2/1/2002 09:00:00	Need county road washed.	BLACK WOLF MINING COMPANY
O001083	1/16/2002 14:17:00	Muddy water running off the mountain and along sides of the road since Green Valley Coal blasted this afternoon.	GREEN VALLEY COAL COMPANY
O001085	11/1/2001 14:18:24	Dust on county road from coal truck going thru Eckman.	MID-VOL LEASING INC
O001085	1/22/2002 13:55:00	Wants to have coal company to put gravel on road. His kids have to walk to and from bus stop in the mud.	MID-VOL LEASING INC
O001183	8/8/2001 10:45:00	Coal dumped along Route 119 and there is a fuel tank on top	CHEYENNE SALES COMPANY, INC
O001885	9/18/2001 09:00:00	On 9/19/01 @ 3:38 pm and 9/17/01 @ 1:38 pm shook ground--damage unknown, she has not checked home for damages.	GOALS COAL COMPANY
O001885	12/17/2001 09:28:00	Loud Blasting. Home showing cracks in ceiling and walls, she believes is caused by blasting. Blasts on 12/17/01 @ 4:12 and 4:37; 12/28/01 @ 4:00.	GOALS COAL COMPANY
O001885	12/18/2001 15:20:00	Two blasts on 12/17/01 think between 2:00 - 4:00, second blast louder and more vibration. 3 blasts on 2/18/01, noticed cracking in dining room and Florida room, stated he has previously had 2 windows broken, went ahead and replaced. Does not know if it	GOALS COAL COMPANY
O001885	12/20/2001 16:20:00	Blasts, 2 or 3 in a row @ 4:05 p.m. and 4:10 p.m. today. Rattles windows, shacks lamps and felt like her whole house shook.	GOALS COAL COMPANY
O002084	11/26/2001 10:00:00	Received complaint via E-mail thru Andy Gallagher DEP office in Nitro. Complaint is receiving dust from coal trucks going by home. He lives adjacent to Antaeus Gary Permit (site of old U.S. Steel Alpheus Plant). Trucks are not tarped and road is not ba	ANTAEUS GARY PROJECT, INC.
O003484	8/12/2001 14:30:00	BLACK WATER IN SPRUCE - LAUREL FORK.	WIND RIVER RESOURCES CORP
O003883	10/1/2001 09:30:00	Blasting at Hawthorne Coal Company has caused damage in the form of cracks in the wall.	HAWTHORNE COAL COMPANY, INC.
O004183	7/29/2001 10:00:00	Black Water	PEERLESS EAGLE COAL CO
O004484	8/7/2001 12:00:57	DUST HAS BEEN TERRIBLE SINCE MINER'S CAME BACK FROM VACATION.	STIRRAT COAL COMPANY
O004484	11/19/2001 09:15:52	MRS. ROBINETTE STOPPED IN LOGAN DEP OFFICE ON 11-19-01. SHE SAID THAT THE COMPANY HAD WASHED MUD OFF THE ROAD ONTO HER PROPERTY AND THAT SHE NOTICED MUDDY WATER OVER THE WEEKEND.	STIRRAT COAL COMPANY
O004484	12/3/2001 08:09:51	COMPANY WASHED MUD INTO DRIVEWAY, CLEANED OUT LAST NIGHT. TRACKING WAS BAD YESTERDAY.	STIRRAT COAL COMPANY
O004484	12/11/2001 08:25:08	THERE IS BLACK WATER IN THE CREEK BY THE CHURCH EMPTYING INTO CLEAR CREEK.	STIRRAT COAL COMPANY
O004484	12/12/2001 09:20:16	COMPANY IS DISCHARGING MUDDY WATER INTO ISLAND CREEK. EQUIPMENT ACROSS CREEK IS DIGGING AND CAUSING IT.	STIRRAT COAL COMPANY
O007882	2/6/2002 10:45:00	Barker's Creek in Bud is running black.	HERNDON PROCESSING COMPANY
O007882	2/6/2002 12:15:00	Black Water in creek near Herndon, WV. Complaint phoned into Nitro office.	HERNDON PROCESSING COMPANY
O008283	9/20/2001 09:18:00	Suspects a coal pile near Laurita Prep Plant (permit #O-82-89) is on fire and the smoke is a problem.	CORESCO, INC.
O008382	12/11/2001 10:31:00	Chemical smell causing her to be ill. Citizen accompanied inspector Jerry Queenberry and myself to area where she smelled the chemical. Area was above the Bluestone refuse impoundment and near a dominion gas compressor station.	SECOND STERLING CORP.
O008382	12/11/2001 10:31:00	Chemical smell causing her to be ill. Citizen accompanied inspector Jerry Queenberry and myself area where she smelled the chemical. Area was above the Bluestone refuse impoundment and near a dominion gas compressor station.	SECOND STERLING CORP.
O012083	7/30/2001 14:47:00	Coal Company is dumping coal to load into coal cars and the coal is stopping up the creek and causing the creek not to flow and fills are accumulating from sewage in the creek. (Behind Webb's Florist at Crab Orchard)	ORCHARD COAL CO
O014783	7/13/2001 10:00:00	Refuse from wash out in Jenkinjones has covered lot owned by the United Methodist Church in Jenkinjones.	MID-VOL LEASING INC
O015683	8/7/2001 16:00:48	LIVES ABOUT 1000 YDS FROM COAL TRUCK ENTRANCE, DUST IS TERRIBLE COMING FROM HIGHWAY, COAL TRUCKS DRIP MUD ON ROAD AND IT TURNS TO DUST.	DELBARTON MINING COMPANY

O015683	8/8/2001 11:06:32	TAILGATE GAME OPEN YESTERDAY ON HIGHWAY NEAR HIS HOME - COAL SPILLED - CREATES DUST. COMPLAINT RECEIVED BY DON HILL, WATER RESOURCES	DELBARTON MINING COMPANY
O015683	11/16/2001 12:30:27	DUST FROM THE MINE IS VERY BAD.	DELBARTON MINING COMPANY
O016280	6/21/2001 09:35:00	Black water in stream from mine. Lives on Rt. 85 above Cessana.	PIONEER FUEL CORPORATION
O016583	7/31/2001 17:45:54	FUGITIVE DUST AND NOISE FROM SURROUNDING MINE RELATED AREAS.	EASTERN ASSOCIATED COAL CORP.
O016583	9/24/2001 10:12:32	BLACK WATER REPORTED AT/NEAR BOB WHITE OR JARRELL'S BRANCH AREA. CALL FORWARDED TO DEP BY MSHA AND BOONE CO. 911 - CALLERS WISHING TO REMAIN ANONYMOUS	EASTERN ASSOCIATED COAL CORP.
O100187	2/1/2002 09:00:00	Need county road washed.	MARTINKA COAL COMPANY
O100693	8/13/2001 10:00:00	Ms. Carroll is concerned that Robloe Coal Company is placing refuse from coal mined at the company's Hacker's Creek Mine on their refuse site (permit #O-1009-93) without the necessary and proper rights and authorization.	ROBLEE COAL COMPANY
O300700	1/17/2002 11:00:50	Trucks hauling coal from S-3004-00 are creating noise pollution using engine brakes to descend the grade at the mouth of Rich Creek.	POWELLTON COAL COMPANY, LLC
O300700	1/24/2002 10:40:03	Coal truck traffic on 80/3 between Rt. 39 and the Rich Creek Haulroad is a danger to local traffic. Trucks waiting in line by roadside obstruct view of oncoming traffic. Roadside berms breaking down to lines under increased weight cause slick pavement w	POWELLTON COAL COMPANY, LLC
O301095	7/5/2001 09:10:00	Black water coming from Marfork Coal Co.	MARFORK COAL COMPANY, INC
O301095	8/21/2001 15:00:00	Blasts on 9-18-01 @ 10:00 am and 11:00 am and on 9/19/01 @ 4:15 p.m.--Excessively loud and shook her residence also 9/21/01 at 4:25 p.m.	MARFORK COAL COMPANY, INC
O301095	10/5/2001 13:17:00	Blasting has shaken homes, glass artifacts moved, mirror shifted...on following dates 9/18/01 @ 10:30-11:00 am, 9/19/01 @ 1615, 9/21/01 NTN, 9/26/01 @ 11:35 a.m., 9/27/01 @ 1630, 10/3/01 @ 1630.	MARFORK COAL COMPANY, INC
O301095	1/8/2002 16:29:01	Blast 1/8/02 at 4:20 p.m.. Blast shook house, knocked stuff off window sills.	MARFORK COAL COMPANY, INC
O301095	1-8-2002 16:30:01	Blast--4:20 p.m. on 1/8/02. Really strong blast--things fell off counters in his mobile home. shook his home really bad.	MARFORK COAL COMPANY, INC
O301095	1/10/2002 16:23:01	Blast 1/10/02 @ 4:10 p.m. similar to the one on 1/8/02, knocks things over.	MARFORK COAL COMPANY, INC
O301095	1/14/2002 15:30:01	Blasting on 11/22/01 @ 4:45, 12/17/01 @ 4:17; 12/27/01 @ 3:50; 12/28/01 @ 3:30, 3:40, 3:50; 1/2/02 @ 3:25, 1/3/02 @ 10:05 and between 4 and 5, 3 more blasts; 1/5/02 at 11:00 and 2:30; 1/11/02 @ 4:05, 1/14/02 at 4:05 p.m.	MARFORK COAL COMPANY, INC
O301095	1/16/2002 12:59:00	Blasting on 1/15/02 @ 4:05 and 4:12 p.m. knocked guttering extensions loose and cracks in ceiling and walls, and also bathroom.	MARFORK COAL COMPANY, INC
O301095	1/22/2002 15:40:00	1/22/02 @ 10:45 and 1/21/02 @ 3:47, 4:00, 4:04, 4:07, 4:35	MARFORK COAL COMPANY, INC
O301095	1/22/2002 16:10:00	Blasting on 1/19/02 @ 1:29, cinderblock house, house shook and felt in their feet.	MARFORK COAL COMPANY, INC
O301095	1/23/2002 16:30:00	Blast at 1/23/02 @ 4:26 and lasted 3 to 4 seconds.	MARFORK COAL COMPANY, INC
O301095	1/29/2002 10:36:00	Blast shook house and shook her as well 1/28/02 @ 1:23 p.m.	MARFORK COAL COMPANY, INC
O301489	8/9/2001 11:02:14	Blasting shaking her house.	KINGSTON RESOURCES INC
O302493	9/5/2001 09:30:00	Reported black water in marsh Fork coming from Marfork Coal Company.	MARFORK COAL COMPANY, INC
O302493	1/30/2002 15:05:00	Mr. Woody is concerned that Massey Coal operations along Marsh Fork are dumping or allowing chemicals to enter the stream. Mr. Woody has had recent health problems that he believes are related to the chemicals he gets his in his water from the Whitesville	MARFORK COAL COMPANY, INC
O500391	11/27/2001 15:00:00	STOCKPILE IN YARD IS SMOKING, CAUSING PROBLEMS OFF PERMIT AREA WITH SMELL.	CC COAL COMPANY
O500391	1/17/2002 16:45:00	DUST ON HIGHWAY AT AND NEAR ALL LOADING DOCKS ON REFERED TO STRETCH OF US 52. PERMIT NUMBERS INVOLVED INCLUDE: AQUILA LOADING DOCK - PERMIT #O-5061-87 - NPDES #WV090576. C C COAL CO. - PERMIT #O-5003-91 - NPDES #WV1010509. PEN COAL CORP. - PERMIT #O-5	CC COAL COMPANY

O500788	12/28/2001 15:00:36	DUST IS RUINING THEIR HOMES. THEY ARE DUMPING TRUCKS OVER A HIGHWALL AND 90 % OF THE TIME THEY DON'T USE ANY WATER ON THE COAL. THEY ARE ALSO LOADING TRAINS AT NIGHT AND NOT USING ANY WATER WHERE THE COAL COMES OFF THE BELT AND IT CAUSES A BIG CLOUD OF D	MATE CREEK ENERGY OF WV INC
O500788	1/8/2002 14:45:30	DUST IS RUINING HIS HOME. SAYS DUST IS EASY TO SEE TODAY SINCE IT HAS SNOWED. THEY ARE NOT RUNNING THEIR WATER SPRAYERS. RESIDENT ALSO SAYS THEY ARE DUMPING AND LOADING TRAINS DURING NIGHT.	MATE CREEK ENERGY OF WV INC
O500788	1/10/2002 09:28:57	COMPLAINANT SAID SHE WANTS AN INSPECTOR TO COME TO HER HOUSE AND LOOK AT THE DUST ON HER CAR AND ON THE SNOW BEFORE THE SNOW MELTS TODAY. SHE SAID IT WAS TERRIBLE.	MATE CREEK ENERGY OF WV INC
O501795	7/17/2001 10:20:00	"COAL DUST IS GETTING ON MY CUSTOMERS (AND MY) CARS AND ON AND AROUND MY PROPERTY AND BUILDINGS". CITIZEN WANTS PERMITTEE TO HIRE A PERSON TO KEEP THE CARS AND PROPERTY CLEAN.	KANAWHA RIVER TERMINALS INC
O501795	8/28/2001 13:30:00	FUGITIVE DUST WAS BLOWING OFF BONDED AREA & ONTO MR. FRY'S PLACE OF BUSINESS WHICH IS LOCATED APPROXIMATELY 200 YARDS SOUTH OF BONDED AREA WHERE DUST WAS GENERATED. WHEN I INVESTIGATED, MR. FRY WAS VERY UNCOOPERATIVE & CONTINUALLY USED ABUSIVE LANGUAGE T	KANAWHA RIVER TERMINALS INC
O501795	9/11/2001 13:00:00	HOUSE HAS BEEN DUSTED FROM OPERATION NEAR HOME.	KANAWHA RIVER TERMINALS INC
O501992	8/23/2001 09:00:00	FISH KILL AT POND FORK.	GMAR MINING COMPANY
O504187	8/25/2001 13:05:00	TRUCKS ARE TRACKING COAL FINES ONTO HIGHWAY ON WHICH SHE TRAVELS TO WORK, GETTING CAR DIRTY EVERYDAY. CITIZEN STATED THAT TWO SEPARATE DOCKS WERE DOING THIS IN DIFFERENT AREAS AND THIS ONE 'WASN'T SO BAD'. CITIZEN WAS CONTACTED BY PHONE ON 8/26/01.	PEN COAL CORP
O504187	1/17/2002 16:45:00	DUST ON HIGHWAY AT AND NEAR ALL LOADING DOCKS ON REFERED TO STRETCH OF US 52. PERMIT NUMBERS INVOLVED INCLUDE: AQUILA LOADING DOCK - PERMIT #O-5061-87 - NPDES #WV0006576. C C COAL CO. - PERMIT #O-5003-91 - NPDES #WV1010808. PEN COAL CORP. - PERMIT #O-5	PEN COAL CORP
O505481	11/14/2001 12:30:00	DUST COMING FROM ROAD IS COVERING HIS PATIO FURNITURE, CARS, AND HOUSE.	ROCKSPRING DEVELOPMENT INC
O506788	7/18/2001 10:16:00	BLACK WATER IN LITTLE COAL RIVER	INDEPENDENCE COAL COMPANY, INC.
O509066	9/17/2001 15:44:50	BROWN WATER RUNNING OFF MOUNTAIN INTO WEST FORK BEFORE COAL COMPANY NEAR RAILROAD TRACKS. APPROXIMATELY 250 YDS. PAST RAILROAD TRACKS.	EAGLE ENERGY, INC.
O506187	9/26/2001 13:00:00	TRUCKS ARE TRACKING COAL DUST ONTO HIGHWAY 52. SHE DRIVES TO WORK BY THIS AREA AND IS GETTING DUSTED DAILY. CITIZEN WAS CONTACTED BY PHONE ON WE., SEPT. 26, 2001.	AQUILA DOCK, INC.
O506187	1/17/2002 16:45:00	DUST ON HIGHWAY AT AND NEAR ALL LOADING DOCKS ON REFERED TO STRETCH OF US 52. PERMIT NUMBERS INVOLVED INCLUDE: AQUILA LOADING DOCK - PERMIT #O-5061-87 - NPDES #WV0006576. C C COAL CO. - PERMIT #O-5003-91 - NPDES #WV1010808. PEN COAL CORP. - PERMIT #O-5	AQUILA DOCK, INC.
O508091	8/24/2001 08:58:56	CITIZENS ON DUNCAN FORK CONCERNED THAT DELBARTON MINING IS CONDUCTING MINING ACTIVITY BEFORE PERMIT IS APPROVED. WANTS TO ACCOMPANY INSPECTOR ON SITE.	DELBARTON MINING COMPANY
O508091	9/11/2001 08:30:39	MAYBE A BLAST OR ROOF FALL SHOOK CEILING FANS AND COMPUTER APPROX. 8:00 P.M. 9-8-01.	DELBARTON MINING COMPANY
O508091	11/16/2001 12:30:27	DUST FROM THE MINE IS VERY BAD.	DELBARTON MINING COMPANY
O509186	8/3/2001 20:30:25	RECEIVED CALL FROM D. WHITE ON 911 REFERRAL. BLACK WATER IN POND FORK AT HARRIS.	EASTERN ASSOCIATED COAL CORP.
O601388	7/26/2001 12:00:00	The 911 dispatcher stated they had received a citizen's phone call saying that the refuse dam at Chicopee Coal Company was overtopping and going to break. The dispatcher contacted Clay control and the Clay volunteer fire department fire chief and had him	CHICOPEE COAL COMPANY, INC.
O603988	10/15/2001 13:45:27	Complained the deck was letting trucks track debris from the bonded area onto US Rt. 60.	KANAWHA RIVER TERMINALS INC
P055390	9/12/2001 14:02:17	Dust from Little Creek Deck.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
P055390	10/2/2001 16:30:58	Dust from Little Creek Deck.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.

P055390	12/10/2001 10:28:02	Dust at Shiswabury.	LITTLE CREEK DOCK COMPANY, INC.
P060500	7/23/2001 12:00:59	REFERRED FROM TONY GRIDAC 7-20-01 1:26 P.M. BLASTING HAS CAUSED DAMAGE FROM HOME. SIDING LOOSE ON HOME. HAS HAD PREBLAST SURVEY DONE BY JUPITER/ CALLISTO; 2ND SURVEY DONE BY UNKNOWN; NO COPY YET. (*MARCH?) BAD BLAST ON 7-13TH(?) *BLAST 7:24/01 AT 5:4	JUPITER COAL CO INC
P060500	8/3/2001 05:49:11	CALLED ABOUT BLASTING TO M. MAYS. CALL REFERRED TO LOGAN OMR ON 8-8-01 FROM OEB. CITED 4 DATES & TIMES FOR BAD SHOTS: 6/19/01 09:23 a, 8-1-01 5:57 p, 8-01-01 7:20 p, AND 8/3/01 5:58 p. CALLED TO COMPLAIN ABOUT BLASTING, BUT NOT CLAIMING ANY DAMAGE.	JUPITER COAL CO INC
P060500	8/21/2001 08:09:07	BLASTING DAMAGE TO HOME. FOLLOW UP BY L T PACK 01-09-02 - BLASTING DAMAGED HOUSE. (SEE PREVIOUS MR-35'S)	JUPITER COAL CO INC
P060500	8/23/2001 17:00:38	VERBAL AND WRITTEN COMPLAINT REGARDING BLASTING OPERATIONS AND BLASTING SHAKING HOUSE. IDENTIFIES BLASTS ON 6/19; 8/1; 8/3; & 8/22 OF 2001	JUPITER COAL CO INC
P060500	9/12/2001 10:20:51	FELT BLAST & HEARD NOISE FROM BLAST AT 9:20 A.M. THIS DATE. AFTER RECENT TERRORIST ATTACKS, THIS BLAST SCARES KIDS WHO ARE NOT OLD ENOUGH TO DISCERN DIFFERENCES. WOULD LIKE COMPANIES TO LIMIT OR CEASE BLASTING FOR A DECENT PERIOD UNTIL ADJUSTMENT CAN BE M	JUPITER COAL CO INC
P060500	10/2/2001 12:00:18	BLASTING EVENTS SHAKING HOUSE. LETTER IDENTIFIES EVENTS ON 8/27; 9/4; 9/5; 9/15; FOLLOW UP BY L T PACK 01-09-2002 - BLASTING SHAKING HOUSE	JUPITER COAL CO INC
P060500	1/15/2002 08:00:21	REPORTING BLASTING DATES THAT SHOOK HOUSE. DATES - 10-10;24 - 11/2;6;7;8;13 - 12/6; 26-1/2; 4. NO REPORT OF DAMAGES AT THIS TIME (LETTER ATTACHED) "WVDEP HAS TRIED REPEATEDLY TO CONTACT MS. CASTLE AT PHONE # PROVIDED. PLEASE PROVIDE ADDITIONAL PHONE	JUPITER COAL CO INC
P060500	1/28/2002 13:00:11	BLASTING SHOOK HOME. SEE MR-35 DATED 1-15-02.	JUPITER COAL CO INC
P061200	8/23/2001 10:34:00	Very gray water in Missouri Run below the coal prep plant.	COASTAL COAL-WEST VIRGINIA, LLC
P061200	9/18/2001 12:00:00	Foamy water in Missouri Run below preparation plant on 09/18/2001.	COASTAL COAL-WEST VIRGINIA, LLC
P061200	9/18/2001 14:15:00	Dead fish in Missouri Run below preparation plant	COASTAL COAL-WEST VIRGINIA, LLC
P061200	10/18/2001 14:00:00	Water in Missouri Run below the preparation plant is black and moving upstream. The complaint was from 10/17/2001.	COASTAL COAL-WEST VIRGINIA, LLC
P071200	10/17/2001 13:30:00	Red and muddy water entering Tygart River in vicinity of prep plant. Prep plants ponds are red. River above prep plant is clear and muddy below.	DANTE COAL COMPANY
P202601	6/18/2001 17:00:00	Domestic water well affected by coal prospecting drilling nearby. Water historically of good quality, has had a bad taste, odor and particles in it since drilling commenced. Particles worse in hot water. Load of laundry ruined. Drilling commenced dur	CONSOLIDATION COAL COMPANY
Q000284	9/26/2001 16:20:09	Millville Quarry, Inc. is drilling again along road. It is loud and Mr. Friedman works at home. Also last time they (Millville) caused some road subsidence. Mr. Friedman would like warning signs posted.	MILLVILLE QUARRY, INC.
Q009573	10/24/2001 11:21:00	Blast of September 24, 2001 caused well to smell like sulphur for 3 days then cleared.	FAIRFAX MATERIALS, INC.
Q021876	7/24/2001 10:15:00	Blast today shook house. House shows cracks on inside walls that she feels have been caused by blasting over the years. Walls are hog hair plaster. Also a fence gate constructed recently will not properly close. House is an older house remodeled sever	RIVERTON CORPORATION
Q021876	11/15/2001 10:03:00	Dust, noise, danger to pond, blasting are all problems Mr. Kennedy has with Riverton Corporation. The dust is bad especially at start up early in the morning. The noise from dumping and crushing is bad. The blasting "rocks" his house and he is afraid a	RIVERTON CORPORATION
Q200197	10/2/2001 11:15:00	Well water has become progressively worse. Has higher sediment, discoloration and filter changes are required more frequently.	J. F. ALLEN COMPANY
Q201900	8/22/2001 11:45:00	Discoloration of water from well following blasting on Monday 08/20/01 and blasting 08/16/01. Water in toilet tank was reported to have been muddy and white clothing was yellowish following washing.	J. F. ALLEN COMPANY
Q201900	8/27/2001 11:10:00	Discoloration and muddiness of water in Left Fork of Chenoweth Creek downstream of new quarry. Mud appears to be originating at the new quarry. Mr Krantz has notified company.	J. F. ALLEN COMPANY

R074600	8/1/2001 07:16:29	BLACK WATER IN RUM CREEK	BANDMILL COAL CORPORATION
R074600	8/1/2001 07:33:06	BLACK WATER SPILL IN RUM CREEK	BANDMILL COAL CORPORATION
R074600	1/3/2002 10:30:28	WATER FROM CONVEYOR DRIPPING ON ROAD AND FREEZING MAKING DANGEROUS SPOT ON COUNTY ROAD.	BANDMILL COAL CORPORATION
S000985	8/26/2001 15:00:44	BLASTING ON 6-13-01 AND 8-23-01 WAS HARD AND SHOOK HIS RESIDENCE	ALEX ENERGY, INC.
S000985	7/11/2001 14:00:52	BLASTING ON 7-9-01 AT 4:47 AND 7-13-01 AT 4:08 SHOOK HIS HOUSE AND KNOCKED PICTURES OFF THE WALL.	ALEX ENERGY, INC.
S000985	7/10/2001 07:41:04	DUST FROM 8-9-85 PERMIT	ALEX ENERGY, INC.
S000985	8/7/2001 08:25:26	Blast on 8/07 a.m. was a "wingdinger" of a blast.	ALEX ENERGY, INC.
S000985	9/6/2001 10:43:07	BAD BLAST AT 10:40 A.M. TODAY 9-6-01, OEB INSPECTORS WERE AT HIS HOUSE AND HAD GONE ON THE JOB ABOUT 30 MINUTES EARLIER.	ALEX ENERGY, INC.
S001584	11/2/2001 11:20:00	Trucks hauling sludge have crushed culvert in driveway.	OMEGA MINING CO INC
S003576	8/21/2001 09:00:00	Blasting at Evergreen Mining Company complex has shaken house several times. House is under construction and plaster work has cracked at corners of windows (interior). He repaired it once but now is cracked again. Mr. Green is concerned shaking from bl	EVERGREEN MINING COMPANY
S003576	8/22/2001 12:00:00	Well no longer can supply household. Quality is declining and softner can no longer adequately treat. Well has been running dry. Owner is concerned blast vibrations felt at house has affected well. Contractor is drilling a new well as old one can no l	EVERGREEN MINING COMPANY
S003576	8/24/2001 16:48:00	Blasting at Evergreen has been shaking house. Damage has occurred to chimney and it is leaking water in when it rains. The Woods believe the damage was caused by blasting at the Evergreen complex. No specific shots were referred to.	EVERGREEN MINING COMPANY
S005730	10/18/2001 14:34:00	Property not reclaimed. County road is not adjacent to property anymore. Access to property is gated.	UPSHUR PROPERTY, INC.
S006585	8/5/2001 10:08:00	Road at her house was destroyed by last week's flood. She says (2) people have tried to get to pond above her house to treat water and check water. She has been told that ponds washed out during the flood.	ALEX ENERGY, INC.
S007262	8/14/2001 13:40:00	Very concerned over conditions of a pond located in Upper Brewsterdale Hollow that was damaged by flood event of July 9, 2001. The emergency spillway has washed out all rip-rap and the primary exit pipe has been blocked by debris and beavers. There is a	BLUESTONE COAL CORPORATION
S007262	11/27/2001 08:21:00	The road going to Brewsterdale past the Red Foxx Surface Mine is very muddy when it rains.	BLUESTONE COAL CORPORATION
S007262	11/27/2001 08:21:01	The road going to Brewsterdale past the Red Fox Surface Mine is so muddy when it rains that his wife cannot get to work.	BLUESTONE COAL CORPORATION
S007262	12/10/2001 00:00:00	The road going to Brewsterdale past the Red Fox Surface Mine is very muddy when it rains. The coal company is building berms on county road, causing it to be terible for local traffic. The berm being constructed does not allow room for 2 lane traffic a	BLUESTONE COAL CORPORATION
S007262	12/10/2001 09:01:00	The road going to Brewsterdale past the Red Fox Surface Mine is very muddy when it rains. The coal company is building berms on county roads causing the road to be terible for local traffic. The berm being constructed does not allow room for 2 lane tra	BLUESTONE COAL CORPORATION
S007565	1/8/2002 14:00:39	PORCH ON HIS HOUSE IS SEPARATING AT THE TOP. ALSO, SHINGLES HAS A LONG CRACK. HE BELIEVES IT'S CAUSED BY BLASTING.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
S008880	7/23/2001 12:39:01	BLAST AT 12:15 P.M. ON 7-23-01 WAS VERY LOUD AND BOULDER ROLLED DOWN INTO TIMBERS BEHIND HOUSE.	TRACE CREEK COAL COMPANY
S008880	7/30/2001 08:39:50	POND IN JIM'S BR. IS FULL. MUD IS COMING DOWN THE STREAM	TRACE CREEK COAL COMPANY
S008880	7/30/2001 10:10:24	BLASTING DAMAGED FIREPLACE IN MARCH OF 2001	TRACE CREEK COAL COMPANY
S008880	7/31/2001 12:56:38	WANTS WELL WATER CHECKED. WATER IS RED.	TRACE CREEK COAL COMPANY
S008880	8/8/2001 12:18:16	Blasting caused pictures to fall off the wall and one hit him on the head and injured him. Also caused clock to fall, breaking it.	TRACE CREEK COAL COMPANY
S008880	8/15/2001 17:05:06	at 2:10 p.m. today a big blast on old Magnet job shook the house & rattled the door; caused a big dust cloud on the hill; lives at Preece Bottom Rd.; her fence is beside Jim's Br. pond road.	TRACE CREEK COAL COMPANY
S008880	8/16/2001 08:20:27	Company is still shooting too hard. They are shaking house to pieces. Shot at 7:00 p.m. on 8/15/01.	TRACE CREEK COAL COMPANY
S008880	8/21/2001 14:00:28	Hard shots on 17th, 18th and 20th. Wants the seismograph checked.	TRACE CREEK COAL COMPANY
S008880	8/28/2001 12:40:55	"Blast at approximately 12:30 very bad".	TRACE CREEK COAL COMPANY

S008880	9/11/2001 12:22:58	"SHOOK EVERYTHING IN HOUSE; PICTURES AND EVERYTHING." SHOT WAS ON 8/11/01 @ 12:23 P.M. ; WANTS SOMEONE THERE TODAY.	TRACE CREEK COAL COMPANY
S008880	9/25/2001 10:30:32	CITIZEN STATED THAT ACCESS ROAD BETWEEN PONDS 5 & 6 IN HEAD OF RIFFE BRANCH HAS WASHED OUT AND IS IMPASSABLE IN SOME SPOTS. ALSO, PONDS NEED CLEANED; FULL OF SEDIMENT.	TRACE CREEK COAL COMPANY
S008880	9/26/2001 11:15:56	"EXTREMELY HARD SHOTS" OCCURRED ON 9/21 @ 1:30P.M. AND 9/25 @ 4:11 P.M. SHOOK HOUSE; TEARING IT TO PIECES"	TRACE CREEK COAL COMPANY
S008880	10/2/2001 10:25:06	"BLAST AT 12:25, VERY BAD" OCCURRED ON 9/28 AND "BLAST AT 10:15 SHOOK EVERYTHING IN HOUSE" OCCURRED ON 10/2.	TRACE CREEK COAL COMPANY
S008880	11/8/2001 15:09:48	BLASTIN HAS BEEN SHAKING HOUSE HARD. PROVIDED A LIST OF DATES AND TIMES OF BLASTS FELT. FORWARDED TO INSPECTOR MIKE ALLIE 11-15-01. JOHN FLESHER	TRACE CREEK COAL COMPANY
S008880	11/8/2001 16:00:47	RESIDENT STATED HE WAS OUTSIDE DIGGING WATER LINE AND FELT VIBRATIONS AND AIR BLASTS ON 11-8-01. ALSO, RESIDENT REQUESTED COPIES OF PREVIOUS COMPLAINT FORMS. I EXPLAINED TO RESIDENT I WOULD HAVE TO GO THROUGH GREG TACKETT'S PAPERWORK AND FIND THE FORMS AN	TRACE CREEK COAL COMPANY
S008880	12/3/2001 13:00:55	CALL RECEIVED BY OUR OFFICE 12-4-01 AROUND 13:00 P.M. FROM RAVELLA IN NITRO DMR OFFICE. CALL WAS ORIGINALLY TAKEN 12-3-01 AROUND 12:00 P.M. BY SOME ONE IN AIR QUALITY OFFICE AND REFERRED TO HER(RAVELLA) FROM SANDY CONWAY AT AIR QUALITY THIS AFTERNOON 12-4	TRACE CREEK COAL COMPANY
S008880	12/11/2001 14:47:42	"CALLER SAID BLAST @ 11:09 A.M. SHOOK HOUSE SO HARD THAT HER ROOF OPENED UP AND WATER LEAKED INTO HER FOYER AND SOAKED HER NEW CARPET. SHE SAID ONE DAY IT SHOOK HER OFF OF A LADDER SHE WAS STANDING ON." RESIDENT ALSO COMPLAINED OF WATER QUALITY PROBLEMS (	TRACE CREEK COAL COMPANY
S008880	12/18/2001 10:00:45	RESIDENT STATED THERE WAS A HARD BLAST ON 12-15-01 @ 13:25 P.M. & ON 12-17-01 @ 11:09 A.M. & 16:25 P.M. ALSO BLAST @ APPROXIMATELY 10:30 A.M. 12-18-01 (WHILE ON SITE) SHOT WAS FIRED. MR. MARCUM STATES HE HAS RECENTLY STARTED BUILDING A PORCH(ON DECEMBER	TRACE CREEK COAL COMPANY
S008880	1/18/2002 04:11:57	"BLASTING AT 4:10 P.M. - SHOOK HOUSE VERY BADLY.	TRACE CREEK COAL COMPANY
S008880	1/30/2002 12:39:54	"BLASTING AT 12:33 P.M. KNOCKED PICTURES OFF THE WALLS. RESIDENT THOUGHT THEY WERE SUPPOSED TO BE RECLAIMING BUT THEY ARE HAULING COAL EVERYDAY. DOES NOT BELIEVE THEY COULD POSSIBLY BE IN COMPLIANCE WITH LAWS."	TRACE CREEK COAL COMPANY
S012878	1/30/2002 15:40:00	GREY WATER IN BRAGG FORK. 2ND CALL. PREVIOUSLY CALLED IN 1/28-02.	HOBET MINING INC
S016177	10/18/2001 19:45:00	An individual (identified as Clay Unit #60) radioed into the 911 Center that there was black water flowing down Lily Fork. He requested that the local conservation officer be notified. Immediately after hearing this conversation on a home scanner, Inop	LAND USE CORPORATION
S021875	11/15/2001 09:15:00	Blast at Evergreen Mining Company on 11/15/2001 at about 9:05 shook house. Last 2 days they have been blasting to hard.	MOUNTAIN VIEW COAL COMPANY
S023876	8/16/2001 17:00:00	Shot of 08/16/2001 at about 1 PM was very loud and shook residence hard.	EVERGREEN MINING COMPANY
S024076	9/7/2001 10:50:00	Shot of 09/07/2001 at about 10:30 was loud and shook house so hard it knocked a mounted deer head off the wall. Mr. Bowman believes such shots have damaged his house and property. Damage includes cracked windows, cracks in block, and walkways. 2 small	EVERGREEN MINING COMPANY
S024076	10/31/2001 18:00:00	Dust from cast shot of 10/05/2001 at about 1:30 had settled into residential area along Birch River. Dust was very thick, especially at his mothers house. Inspector had spoken to Mr. Hollandsworth on 10/05/2001 while taking pictures of area, but we did	EVERGREEN MINING COMPANY
S024076	11/2/2001 11:55:00	Shot of 11/02/2001 at about 11:45 caused dust to enter residential area along Birch River. Dust was bad near his mothers house and along Route 82.	EVERGREEN MINING COMPANY
S024076	11/12/2001 09:05:00	Well at residence has been running dry. Had pre-mine survey for deep mine recently. Had felt several shots shake house and wondered if shaking may have affected well.	EVERGREEN MINING COMPANY

S024076	11/14/2001 09:48:00	Shot at Evergreen Mining Company on 11/14/01 at about 8:30 was really hard and shook house bad.	EVERGREEN MINING COMPANY
S100200	9/15/2001 11:00:00	Blasting on Patriot S-1002-00 is rattling windows, shaking their house and causing things to fall off of shelves. Some cracks are appearing on the basement walls. This is a new home.	PATRIOT MINING COMPANY, INC.
S100300	9/27/2001 13:00:00	Mining on Patriot S-1002-00 has caused large rocks and sediment to be deposited in the stream (Gaston Run) behind his residence.	PATRIOT MINING COMPANY, INC.
S100200	10/24/2001 13:00:00	A citizen contacted the Office of Air Quality about dust blowing off of Patriot Mining Company, Inc. permit S-1002-00.	PATRIOT MINING COMPANY, INC.
S100200	11/1/2001 08:57:00	Flyrock from Patriot Mining's Gaston Run North job was cast onto his property from blast put of the previous day.	PATRIOT MINING COMPANY, INC.
S100200	1/14/2002 13:00:00	Coal trucks leaving Patriot S-1002-00 (Gaston Run job) are tracking mud onto Rt. 19. Complaint was called in to Morgantown OSM office and transferred to Mike Carlco, Inspector Specialist, DEP.	PATRIOT MINING COMPANY, INC.
S100297	11/9/2001 08:45:00	Mr. Medley believes the church building received damage from blasting on Patriot Mining Co., Inc. permit S-1002-97.	PATRIOT MINING COMPANY, INC.
S100488	9/14/2001 06:40:00	Debris from Sterling Faucet plant in Monongalia county is being dumped into Freeport Mining's strip pit.	FREEPORT MINING CORPORATION
S100595	9/13/2001 11:30:00	Surface mining has caused water quality in well to worsen.	FREEPORT MINING CORPORATION
S100797	7/6/2001 10:00:00	Blasting from Patriot's permit S-1007-97 has caused some cracks in plaster. Also they are shaking his residence and things are getting knocked off of shelves.	PATRIOT MINING COMPANY, INC.
S100797	9/13/2001 14:30:00	Believes that blasting has caused cracking in foundation and damage to chimney.	PATRIOT MINING COMPANY, INC.
S100797	11/20/2001 11:00:00	Blasting from Patriot S-1007-97 has caused damage to their house	PATRIOT MINING COMPANY, INC.
S100797	12/13/2001 14:00:00	Patriot is not replacing topsoil on their property. Blasting signals are not always being heard and the complainants are concerned about blasting within proximity of the Arnettsville School.	PATRIOT MINING COMPANY, INC.
S100897	10/17/2001 11:05:00	Company failed to reclaim "off permit" disturbance on land of Oscar Lipscomb. Two drill holes not filled.	GRACE ENTERPRISES, INC.
S101656	10/12/2001 09:30:00	Coal mining in the area has caused their well to go bad. Water in well has a high iron content causing an iron sludge to clog water conditioner.	AMERIKOHL MINING, INC.
S108656	10/24/2001 06:00:00	Deep pits on the surface area where Sediment Pond No. 2 was reclaimed caused his tractor and brush hog to become stuck.	AMBREC CORPORATION
S200555	6/12/2001 17:00:00	Car got stuck in hole on County Road 55/1, road on Nesco permit near Marshall Williams residence. Had to have another vehicle pull him out of hole. May have damaged vehicle.	NESCO, INC.
S200556	6/12/2001 17:15:00	Vehicle stuck in hole on county road on Nesco permit near Marshall Williams residence. Had to be pulled out of hole.	NESCO, INC.
S200556	12/12/2001 11:00:00	Nesco has disturbed and is mining on property owned by him. He also indicated that he had not received any notification from Nesco prior to mining.	NESCO, INC.
S200556	12/12/2001 15:00:00	Citizens have contacted him about Nesco. Citizens have told him that Nesco has been mining on their property and not paying royalties. Del. Proudfoot wants to know how checks and balances are determined to see that all property owners are paid royalties.	NESCO, INC.
S201100	7/9/2001 09:30:00	Blasting at Fola Coal has been shaking house. Flyrock from mining at head of Leatherwood landing in woods on Leatherwood side of permit. Did not receive notice for pre-blast survey from Fola. Concerned about future mining on this permit as work gets cl	FOLA COAL COMPANY, L.L.C.
S201199	8/27/2001 16:00:00	Blasting at Fola coal company surface mine cracked glass in four windows of the Twentyville Baptist Church. Breakage occurred between church service on 08/04/01 and 08/11/01. Mrs. Morris contacted company but they would not accept responsibility. They w	FOLA COAL COMPANY, L.L.C.
S201199	8/27/2001 11:01:00	Blasting since January 2001 has been shaking house, vibrating windows and moving objects hangin on wall. Big blast on 05/17/01 cracked plaster on living room ceiling. There have been many more since then i.e. 06/13/01 @ 5:37, 06/20 @ 12PM, 06/22 @ 12:15	FOLA COAL COMPANY, L.L.C.
S201293	9/20/2001 14:00:00	Blast on 09/15/2001 at 11:00 shook house and caused well to get muddy. Well is 32' deep, drilled 1974. Since blast well has been muddy and discolored. He has had to replace paper cartridge filter every couple days.	FOLA COAL COMPANY, L.L.C.
S201293	12/18/2001 16:30:00	Blasting from a southern direction has caused damage to wall. From a well holding 160 gallons to only about 90 gallons or less. Also blasting has shook home at different times.	FOLA COAL COMPANY, L.L.C.
S204988	10/12/2001 13:20:00	Surface water coming from reclamation site causing flooding/property damage.	C. & W. COAL COMPANY
S300495	10/5/2001 13:17:01	Blasting - via Nitro Office.	CATENARY COAL CO
S300495	10/5/2001 13:17:12	Blasting - via Nitro Office.	CATENARY COAL CO

S300495	10/5/2001 13:17:40	Blasting - complaint information via Nitro office.	CATENARY COAL CO
S300495	10/9/2001 16:23:06	Really good blast.	CATENARY COAL CO
S300598	10/2/2001 09:00:00	Loud Blasts on: 9/27/01 @ 4:00 p.m. - 4:15 p.m. 9/28/01 @ 4:00 p.m. - 4:15 p.m. 10/01/01 @ 4:20 p.m.	ALEX ENERGY, INC.
S300598	10/4/2001 10:00:00	Loud Blasts on: 9/27/01 @ 4:00 p.m. - 4:15 p.m.: 9/28/01 @ 4:00 p.m. - 4:15 p.m.: 10/01/01 @ 4:20 p.m.	ALEX ENERGY, INC.
S300598	11/8/2001 14:22:00	Loud blasting - Complainant lost well. Blasting occurred during evening hours as per Joe : Weeds (son of complainant). Blasting occurred on 11/8/01.	ALEX ENERGY, INC.
S300598	12/17/2001 16:52:00	Loud blasting: 12/17/01 at 8:30 a.m. - 9:00 a.m. and at 4:25 p.m.	ALEX ENERGY, INC.
S300598	12/19/2001 08:08:00	Loud blasting - 12/18/01 at 4:43 p.m.	ALEX ENERGY, INC.
S300598	12/18/2001 09:12:00	Blast - 12/18/01 at 4:45 p.m. Very strong blast - shook his house and noticed window was broken. NOTE: he has felt blasts before but this was the strongest one he has felt.	ALEX ENERGY, INC.
S300598	1/23/2002 01:10:00	Blasting - cracks in the house.	ALEX ENERGY, INC.
S300598	1/23/2002 08:45:00	Loud Blasting - Shakes house and possible well. (NOTE: No specified times and dates).	ALEX ENERGY, INC.
S300598	1/23/2002 12:59:00	Blasting - shaking the mobile home.	ALEX ENERGY, INC.
S300598	1/25/2002 09:06:00	Very strong blast at 9:00 a.m. on this date. The mentioned blast shook the house. (Closest active mine is Alex Energy permit # S-2005-98).	ALEX ENERGY, INC.
S300598	1/25/2002 09:35:00	Very strong blast at 9:00 a.m. on this date. The mentioned blast shook house. (Closest active mine - Alex Energy - Permit #S-2005-98).	ALEX ENERGY, INC.
S300599	7/28/2001 20:57:32	Diesel fuel on top of water in pond being pumped into Cabin Creek near Dakota. Call to hotline forwarded to DMR on 7/29/01 @ 10:55 a.m. Specialist Vernon was on site 7/29/01 due to callout for impoundment inspections and talked to Cabin Creek Watershed	PRINCESS BEVERLY COAL CO
S300599	8/29/2001 06:02:00	Excessive dust, trucks leave dirt on road where they enter the paved county road.	CHICOPEE COAL COMPANY, INC.
S300796	8/9/2001 10:08:53	Black water down the hollow from the active strip.	CC COAL COMPANY
S300796	8/9/2001 20:36:08	Black water in Four Mile Hollow of Lens Creek.	CC COAL COMPANY
S300998	12/28/2001 16:35:00	Blast - 4:30 p.m. and 4:32 p.m. on 12/28/01. Rattled garage door. blast usually occurs around 4:00 p.m. everyday.	TRIPLE "B" LEASING CORPORATION
S301300	8/15/2001 12:00:48	Trailer is starting to buckle, roof is leaking, siding is buckling. House is only 5 years old.	UPPER KANAWHA VALLEY DEVELOPMENT CORP.
S301300	11/9/2001 15:55:00	Pumping station for filling up water trucks is about 10 feet from the back of his mobile home and water overflow running under the trailer causing damage.	UPPER KANAWHA VALLEY DEVELOPMENT CORP.
S301400	7/25/2001 04:10:17	Blasting complaint	PRITCHARD MINING CO INC
S301400	7/25/2001 04:10:51	Blasting complaint	PRITCHARD MINING CO INC
S301400	7/25/2001 04:15:57	Blasting complaint	PRITCHARD MINING CO INC
S301400	8/9/2001 11:02:14	Blasting shaking her house.	PRITCHARD MINING CO INC
S301400	9/20/2001 10:35:40	Blasting shaking house.	PRITCHARD MINING CO INC
S301400	11/1/2001 15:10:09	Filling water truck out of seldom seen hollow of Dry Branch of Cabin Creek. Creek is mostly dry.	PRITCHARD MINING CO INC
S301400	11/15/2001 09:05:40	Blast shaking house on 11/15/01 at approximately 8:45.	PRITCHARD MINING CO INC
S301400	11/15/2001 09:10:05	Blast shaking house on 11/15/01 at approximately 8:45.	PRITCHARD MINING CO INC
S301400	11/15/2001 09:40:58	Blast shaking house on 11/15/01 at approximately 8:45.	PRITCHARD MINING CO INC
S301400	11/16/2001 09:30:50	Blast shaking house on 11/15/01 at approximately 8:45.	PRITCHARD MINING CO INC
S301794	8/27/2001 09:00:00	Spring and three wells have experienced water loss as a result of work done in the Left Fork of White Oak Creek by C C Coal Company	TERRY EAGLE COAL COMPANY LLC
S301999	12/4/2001 09:04:00	Blasts on 12-1-01 at 11:50 a.m. and 1:54 p.m. rattled the windows in her home.	INDEPENDENCE COAL COMPANY, INC.
S301999	12/18/2001 09:10:00	Loud blasting on 12-17-01 between 4:12 - 4:27 and on 12-18-01 at 4:08 p.m. Believes blasting has damaged her home.	INDEPENDENCE COAL COMPANY, INC.
S301999	12/18/2001 15:20:01	Blast on 12-17-01 between 2:00 - 4:00 p.m. was louder with more vibration than usual...has noticed some damage to this home but doesn't know if it was caused by blasting or not.	INDEPENDENCE COAL COMPANY, INC.
S301999	12/20/2001 16:20:01	Blast on 12-20-01 shook her house to the extent that the windows and lamps in the house rattled. 2 or 3 blasts in a row. The blasts occurred between 4:05 and 4:10 p.m.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/7/2002 16:25:00	Blast on 1-5-02 at 2:24 pm. shook her home to the extent that the windows rattled and shook and could feel vibration under her feet. nearest operation is Independence or Progress Coal.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/8/2002 16:20:00	Blasting on 1-8-02 at 4:20 p.m. shook her home, knocking things from the window sills.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/8/2002 16:30:00	Blast on 1-8-02 at 4:20 p.m. shook his home to the extent that things fell from the counter tops.	INDEPENDENCE COAL COMPANY, INC.

S301900	1/3/2002 16:25:00	Blast on 1-3-02 at 4:25 p.m. shook his house, rattled windows, knocked things off the wall and cracked shootrack.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/10/2002 08:10:00	Mr. Pettry advises that he has never been notified of the right to a pre-blast survey and that he has previously alleged damage from blasting (investigated by Ron Sheets from the Logan Office).	INDEPENDENCE COAL COMPANY, INC.
S301999	1/14/2002 15:30:00	Blasting is shaking her home on a regular basis. The following dates and times are reported 11-22-01 4:45, 12-17-01 at 4:17p.m., 12-27-01 at 3:50 p.m., 12-28-01 at 3:39 p.m., 3:40 p.m., and 3:50 p.m.; 1-2-02 at 2:30 p.m., 1-3-02 at 10:05 a.m. and 3 more	INDEPENDENCE COAL COMPANY, INC.
S301999	1/17/2002 10:42:00	Blasting on 1-18-02 at 10:30 p.m. shook homes and disturbed the whole neighborhood.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/22/2002 15:48:01	Blasting on 1-21-02 at 3:47 p.m., 4:00 p.m., 4:04 p.m., 4:07 p.m. and 4:35 p.m.; also, on 1-22-02 at 10:45 a.m. Shook her home. Mrs. Williams is concerned that continued shaking will damage her home.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/23/2002 18:36:01	Blasting on 1/23/02 at 4:26 p.m. shook her home. The blast lasted for 3-4 seconds. Mrs. Rorrer is concerned about the continued shaking of her home.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/29/2002 14:10:00	Blast on 1-29-02 at 1:23 p.m. shook the house.	INDEPENDENCE COAL COMPANY, INC.
S301999	1/29/2002 16:35:00	Blast or loud rumble, possibly underground on 1-29-02 at 4:30 p.m. Shook his home and rattled the windows. This occurs several times a month, but this incident was the worse.	INDEPENDENCE COAL COMPANY, INC.
S302192	2/5/2002 06:41:00	Loud blast that rattles his windows.	PEERLESS EAGLE COAL CO
S302990	10/3/2001 09:09:18	Blast on 10/1/01 at 4:48 p.m. Shook house	CATENARY COAL CO
S302990	10/4/2001 18:26:31	Blast too strong. Shock house and shook his mother lying on couch.	CATENARY COAL CO
S302990	11/6/2001 10:10:20	Blast on 11/5/01 at 4:31 p.m. Shook him while he was in his house.	CATENARY COAL CO
S302990	1/2/2002 12:00:25	Catenary is blasting very hard: feels like coal trucks are coming through her home. Blast date and times - 12/27 at 3:50; 12/28/01 at 3:30; 3:40 and 3:50 and 1/2/02 at 2:20 am.	CATENARY COAL CO
S302993	7/2/2001 16:09:53	Blasting causing damage.	PRITCHARD MINING CO INC
S302993	7/19/2001 10:00:51	Blasting causing damage.	PRITCHARD MINING CO INC
S302993	7/27/2001 03:58:49	Blasting causing damage.	PRITCHARD MINING CO INC
S302993	8/3/2001 04:15:12	Blasting causing damage.	PRITCHARD MINING CO INC
S302993	12/12/2001 12:00:50	Blasting started in the area and they have not received a preblast survey.	PRITCHARD MINING CO INC
S302993	12/17/2001 15:35:56	Blast shook house. Nails bulging out of plaster and bricks cracking.	PRITCHARD MINING CO INC
S302794	7/27/2001 09:00:00	Concerned about damage caused by C C Coal Company in Left Fork of White Oak Creek.	CC COAL COMPANY
S302794	8/27/2001 09:09:00	Spring and three wells have experienced water loss as a result of work done in the Left Fork of White Oak Creek by C C Coal Company	CC COAL COMPANY
S302794	8/27/2001 09:09:01	Spring and three wells have experienced water loss as a result of work done in the Left Fork of White Oak Creek by C C Coal Company.	CC COAL COMPANY
S302794	8/27/2001 09:09:02	Spring and three wells have experienced water loss as a result of work done in the Left Fork of White Oak Creek by C C Coal Company.	CC COAL COMPANY
S302794	9/10/2001 14:00:00	No water in tank supplied by coal company.	CC COAL COMPANY
S302794	9/20/2001 13:54:00	Agreement C. C. Coal wants her to sign to get well drilled is unfair.	CC COAL COMPANY
S302794	11/13/2001 13:50:00	Mrs. Workman wants water delivered. The water that the fire department brought is dirty.	CC COAL COMPANY
S302794	11/21/2001 09:30:00	One water tanks has gone dry and messed up pump.	CC COAL COMPANY
S302794	12/3/2001 13:43:00	Out of water--company should know to deliver without her having to call every week. Cement trucks going to the mine site are going too fast.	CC COAL COMPANY
S302794	1/15/2002 14:30:00	Road to her house is very slick. Can coal company put gravel on it?	CC COAL COMPANY
S303390	7/10/2001 13:00:06	Loggers have constructed a 4 feet high dam with 2 twelve inch pipes that were too small to handle the water flow. Says he has complained previously but nothing was done. He wants someone to investigate.	APPALACHIAN MINING INC
S303390	7/16/2001 14:49:29	Concerned about a crack in one of the dams on the strip mine. More rain is expected tomorrow and she is concerned that more flood damage is possible.	APPALACHIAN MINING INC
S304599	1/15/2002 15:18:59	Blasting is shaking her house and on 1/15/02 around 15:13 hours the vibration knocked over figurines in her china cabinet and caused her cupboard to fall open.	APPALACHIAN MINING INC
S400596	8/4/2001 12:00:00	Visible oil in Branch near home. May be coming from surface mine area. Site lot oil was in Bear Branch Hollow near Oceana.	PIONEER FUEL CORPORATION

S400598	1/11/2002 08:30:00	Ceilings cracked-seems to be worse since pre-blast survey done on 4/12/99. Also has done remodeling since pre-blast survey -needs updated survey.	PIONEER FUEL CORPORATION
S400596	1/30/2002 13:00:00	Timber debris and rock sediment discharged from Pioneer Fuel surface mine S-4025-99 on the 17th and 18th of May 2001. Debris blocked a culvert resulting in road damage and sedimentation of the stream bed. This sediment was not removed from the stream be	PIONEER FUEL CORPORATION
S400597	12/5/2001 15:30:00	Very loud blast was heard at approximately 3:45 PM on 12/5/01. Citizen was not complaining about damage or ground vibrations but wanted to know where blast was coming from.	BLACK WOLF MINING COMPANY
S400597	12/21/2001 10:30:00	Felt a rumble from a blast that shook her house around 5:30 pm on Thursday 12-20-01. Would like to know where it is coming from.	BLACK WOLF MINING COMPANY
S400797	11/21/2001 00:00:00	Mr. Richard Dillon contacted the Honorable Nick J. Rahall, II office in reference to stress being on the graves at the Dillon Cemetery due to mining activity.	MID-VOL LEASING INC
S400896	8/15/2001 10:30:00	Blasting on 8/6/01 caused dwelling to shake and caused storm door on the back of the house to come open. Rocks were heard falling through the trees in the woods above the house. Complaintant states that no damage occurred.	PAYNTER BRANCH MINING INC
S400896	8/22/2001 13:00:00	Blasting from Paynter Branch Mining, Inc's surface mines in the area have caused damge to occur to his mobile home located in Brown's mobile home park located at Cyclone, WV.	PAYNTER BRANCH MINING INC
S400896	8/28/2001 10:00:00	Blasting from Paynter Branch Mining, Inc. surface mines in the area have caused damage to occur to his mobile home.	PAYNTER BRANCH MINING INC
S400896	9/19/2001 11:00:00	Blast that occurred on 9/18/01 at 5:30 PM shook his house.	PAYNTER BRANCH MINING INC
S400896	9/19/2001 11:10:00	Blast that occurred on 9/18/01 at 5:30 PM shook his house.	PAYNTER BRANCH MINING INC
S400896	11/7/2001 13:40:00	A blast that occurred on 11/7/01 at 3:31 PM shook his house excessively.	PAYNTER BRANCH MINING INC
S400896	11/7/2001 15:35:00	A blast that occurred on 11/7/01 at 3:31 PM shook his house excessively.	PAYNTER BRANCH MINING INC
S400896	12/3/2001 15:00:00	Blasting that occurred on 12/3/01 at 12:25 PM caused excessive shaking to dwelling and the dust from the shot settled over the community and the fumes from blasting agents caused headaches to Mrs. Adkins. That lasted all evening Mr. Adkins believes blast	PAYNTER BRANCH MINING INC
S400896	1/3/2002 10:00:00	Blast that occurred on 1/3/02 at 9:50 AM was excessive in that it shook items off of shelves and rattled windows. No damage reported.	PAYNTER BRANCH MINING INC
S400896	1/18/2002 17:00:00	Blasting on 1/21/02 at 4:31 PM shook so hard that it woke wife up and shook tv on stand. A shot that occurred on 1/18/02 at 9:38 AM also shook house. *Note-Complaint received from Logan DEP office on 1/22/02.	PAYNTER BRANCH MINING INC
S400896	1/28/2002 14:50:00	Blasting that occurred on 1/25/02 and 1/28/02 shook his house extremely hard and the 1/28/02 blast also resulted in a cloud of dust settling around the community.	PAYNTER BRANCH MINING INC
S400896	1/28/2002 14:55:00	Blasting that occurred on 1/28/02 shook house extremely hard.	PAYNTER BRANCH MINING INC
S401197	7/26/2001 16:05:00	She stated that the strip job behind her house was turning loose muddy, black water and it also had a bad odor to it.	VIRGINIA ENERGY COMPANY
S401499	8/12/2001 09:15:00	Complaint received from the Office of Explosives and Blasting. Mr. McGarvey states that blasting from S-4014-99 on occasion shakes his house and he feels that it also has caused minor roof damge. Mr. McGarvey does not seek compensation from JMAC, all h	JMAC LEASING INC
S401499	11/9/2001 15:00:00	Blasting from JMAC S-4014-99 has shaken the house several times and complaintant feels that the shaking is responsible for several ceiling cracks in their home and wants JMAC Inc. to pay for repairs to the ceilings.	JMAC LEASING INC
S401499	12/27/2001 08:50:00	Blasting in the past months and especially on 12/26/01 has been severe and Mr. McGarvey feels that the blasting has caused ceiling damage to his house for which he would like to be compensated or have repairs made.	JMAC LEASING INC
S401499	1/3/2002 11:10:00	Dust on haulageway. No water from gate to road.	JMAC LEASING INC
S401499	1/28/2002 16:08:00	Dust on Rt 10 from coal haulage at JMAC.	JMAC LEASING INC
S401499	2/1/2002 09:45:00	Blast at JMAC on 2/1/02 at 9:34+ shook house. (Notified by Larry Cook on 2/1/02 PM. Called citizen 2/1/02; visit to home with with Larry Cook on 2/5/02.	JMAC LEASING INC
S401499	2/1/2002 09:45:01	Hard blast on 2/1/02 at 9:34+ also, dust on Rt. 10 from coal trucks leaving JMAC. (Notified by Larry Cook 2/1/02 PM. Called citizen 2/1/02; Visit to home with Larry Cook on 2/5/02.	JMAC LEASING INC
S401595	10/12/2001 10:00:01	Blasting from the Pioneer Fuel Corporation S-4015-96 surface mine has caused Mr. Reach's house to shake on occasion over the past year and he feels that the blasting has resulted in five broken windows in his mobile home. He further stated that the blast	PIONEER FUEL CORPORATION

S401595	10/12/2001 10:51:00	Blasting from the Pioneer Fuel Corp B-4015-95 surface mine has caused Mr. Roach's house to shake on occasion over the past year and he feels that the blasting has resulted in five broken windows in his mobile home. He further states that the blast that	PIONEER FUEL CORPORATION
S401559	10/12/2001 15:25:00	Complaintant stated that someone had blasted and shook his house on 10-12-01 at approximately 3:15 PM. Complaintant also stated that no damage had occurred but he wanted to know who blasted.	MID-VOL LEASING INC
S402566	12/21/2001 15:26:00	Blast shook her residence on 12/21/01 at 3:26 PM.	BLUESTONE COAL CORPORATION
S500394	11/30/2001 12:30:00	BLASTING IS SHAKING HOUSE. THIS OCCURRED AT 3:15 pm ON 11/29/01 AND AT 1200 ON 11/30/01.	CC COAL COMPANY
S500394	12/5/2001 16:25:00	BLASTING SHAKING COMPLAINTANTS HOME. I SPOKE WITH BOTH COMPLAINTS AND THEY SAID THAT THERE MAY BE DAMAGE TO THEIR HOMES.	CC COAL COMPANY
S500394	12/14/2001 16:29:00	BLAST AT 1622 HRS. SHOOK ENTIRE HOUSE.	CC COAL COMPANY
S500395	7/25/2001 15:05:21	Mrs. Baisden reported by phone on 7-25-01 that blasts were hard from Falcon Surface Job on 7-18-01 and 7-23-01. On 8-6-01 Mrs. Baisden reported blasts on 7-30-01 and 8-3-01 were hard and shook her residence.	FALCON LAND CO INC
S500396	8/1/2001 14:00:00	BLACK WATER COMING FROM HOBET MINES ON UPPER MUD RIVER, GOING DOWN RIVER TO MUD RIVER DAM.	HOBET MINING INC
S500396	8/6/2001 09:10:00	WATER COMING OFF OF HILL 8/3/01. STANDING IN ROAD. DUST IN HOUSE. BIG SHOTS 8/6/01 12 NOON AND 3:30 - ROCKS IN AIR.	HOBET MINING INC
S500396	8/24/2001 14:40:00	WATER HAS RECENTLY STARTED SMELLING LIKE ROTTEN EGGS. PRE-BLAST SURVEY WAS DONE 4/28/00 WATER WAS SAMPLED 2/11/99.	HOBET MINING INC
S500396	9/10/2001 12:52:00	BLASTING IS SHAKING MOBILE HOME. WELL WATER NOW SMELLS BAD.	HOBET MINING INC
S500396	9/10/2001 16:25:00	SITTING ON PORCH, CUP OF COFFEE ALMOST VIBRATED OFF. COMMODE TANK LID VIBRATED. (9/18/01) BLASTS BAD ON 9/12,M /13, 20, 24, 28 AND ON 10/1, 2. HAND DUG WELL 50 FT. DEEP - USUALLY HAS 14 TO 15 FT. OF WATER IN IT NOW DOWN TO 6-8 FEET. DOESN'T KNOW IF BLAS	HOBET MINING INC
S500396	10/1/2001 10:50:00	HAS COMPLAINED FOR OVER A YEAR ABOUT BLASTING. INSURANCE ADJUSTER SENT BY COMPANY SAYS "FROSTLINE" IS DAMAGING HIS FOUNDATION. SATURDAY AT 10:25 - 10:27 AM BLAST RATTLED DISHES IN CHINA CABINET ON WALL. SON ACCROSS THE HILL ALSO FELT BLAST. (9/28/01)	HOBET MINING INC
S500396	11/30/2001 16:13:00	BLAST AT 4:05 SHOOK VERY BADLY - NEARLY KNOCKED OVER CHRISTMAS TREE.	HOBET MINING INC
S500206	12/12/2001 16:51:00	COMPLAINT THROUGH DEB. VERY LARGE BLAST AND LOTS OF VIBRATION. RESIDENT LIVES ON HILL AND IS CONCERNED ABOUT 1/4 MILE OF CONCRETE DRIVEWAY. LATER EXPRESSED CONCERN ABOUT DEEP MINING UNDER THE PROPERTY AND SUBSIDENCE DAMAGE. BLAST TIME 12/12/01 AT 1745	HOBET MINING INC
S500593	10/4/2001 10:00:06	COMPLAINANT HAS INDICATED THAT THEY BELIEVE THAT DAMAGE HAS OCCURRED TO THEIR RESIDENCE DUE TO BLASTING FROM ARCH'S RUFFNER COMPLEX. NO SPECIFIC DATES INDICATED. COMPLAINANT BELIEVES THAT THIS DAMAGE HAS OCCURRED OVER AN EXTENDED PERIOD OF TIME THROUGH	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
S500593	10/4/2001 10:00:42	COMPLAINAT HAS INDICATED THEY BELIEVE THAT DAMAGE HAS OCCURRED TO THEIR RESIDENCE DUE TO BLASTING FROM ARCH'S RUFFNER COMPLEX. NO SPECIFIC DATES INDICATED. COMPLAINANT BELIEVES THIS DAMAGE HAS OCCURRED OVER AN EXTENDED PERIOD OF TIME THROUGHOUT THE LIFE O	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
S501593	10/4/2001 10:00:49	COMPLAINANT HAS INDICATED THEY BELIEVE THAT DAMAGE HAS OCCURRED TO THEIR RESIDENCE DUE TO BLASTING FROM ARCH'S RUFFNER COMPLEX. NO SPECIFIC DATES INDICATED. COMPLAINANT BELIEVES THIS DAMAGE HAS OCCURRED OVER AN EXTENDED PERIOD OF TIME THROUGHOUT THE LIFE	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
S500593	1/4/2002 14:30:59	BLAST AT 1426 SHOOK HOUSE BAD.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
S500593	1/4/2002 14:33:54	BLAST AT APPROX. 1426. SEISMOGRAPH IS SET UP NEAR BLAST SITE. "STILL SEE DEBRIS IN THE AIR, THOUGHT IT WAS GOING TO KNOCK SLIDING GLASS DOOR OUT".	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.

S500593	1/14/2002 12:57:10	BLASTING ON 1-12-02 @ 1809 SHOOK HER HOUSE.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
S500592	7/20/2001 09:41:55	Mrs. Vincent complaint is that her well went bad after a shot on 7/19/01 and started going dry. Also, she feels her house is within .7 mile radius and she wasn't given a notice to a pre-blast survey.	MARROWBONE DEVELOPMENT CO
S500592	8/5/2001 09:00:04	WELL ON RENTAL PROPERTY (RENTED TO JACK & ERMA NEWSOME) HAS CHANGED COLOR AND HAS A BAD ODOR SINCE BLASTING STARTED. NO SPECIFIC DATES AND TIMES.	MARROWBONE DEVELOPMENT CO
S500592	8/14/2001 16:57:20	BLASTING THAT SHOOK PICTURES AND MIRROR OFF THE WALL BETWEEN FRIDAY AND 8-14-01. ALSO THE CEILING IS LEAKING AROUND THE CHIMNEY.	MARROWBONE DEVELOPMENT CO
S500592	9/10/2001 15:11:39	BLASTING DAMAGES TO APARTMENTS HE RENTS. BLOCK FOUNDATION CRACKING. TWO WELLS, ONE WENT DRY FOR ABOUT A MONTH AND BURNED UP THE PUMP. BOTH WELLS HAVE ORANGE WATER.	MARROWBONE DEVELOPMENT CO
S500700	7/4/2001 11:00:24	CITIZEN DIDN'T RECEIVE A NOTICE FOR A PREBLAST SURVEY.	MARROWBONE DEVELOPMENT CO
S500700	7/5/2001 08:50:44	CITIZEN STATED BLASTING DAMAGE TO WELL ON 7-3-01 4:05 P.M.	MARROWBONE DEVELOPMENT CO
S500700	7/6/2001 11:49:08	HEAVY BLASTING SHOOK PICTURE FRAMS AT ABOUT 11:45 ON 7/5/01.	MARROWBONE DEVELOPMENT CO
S500700	7/6/2001 12:00:58	HARD BLAST AT 11:45 ON 7/5/01. WELL WATER HAS CHANGED.	MARROWBONE DEVELOPMENT CO
S500700	7/10/2001 16:30:44	RESIDENT COMPLAINED OF EXCESSIVE BLASTING VIBRATIONS; CHANGES IN WATER (WELL); DAMAGE TO HOME; & UNSTABLE ROCKS ON HILL MAY BE IMPACTED BY BLASTING.	MARROWBONE DEVELOPMENT CO
S500700	7/17/2001 11:07:24	REAL BAD BLAST ON 7/17/2001 AT 10:58 & 7/23/2001 AT 4:08 & 7/26/2001 AT 4:45. THE CHILDREN ARE SCARED OF BLASTING & THE SHOTS ARE DAMAGING THEIR HOUSE.	MARROWBONE DEVELOPMENT CO
S500700	7/25/2001 04:38:41	BLAST ON 7/25/2001 AT 3:55 & TWO SHOTS ON 7/25/2001 AT 4:11 SHOOK HOUSE REALLY BAD. HIS HOUSE HAS CRACKS IN HIS HOUSE THAT WASN'T THERE AT THE TIME OF THE PRE-BLAST SURVEY.	MARROWBONE DEVELOPMENT CO
S500700	8/29/2001 11:15:00	SHE RECEIVED A PRE-BLAST SURVEY IN JANUARY BUT SAYS THAT SHE HAS DAMAGES FROM BLASTING THAT HAVE OCCURRED SINCE THE SURVEY WAS DONE, i.e. KITCHEN FLOOR IS SLANTED & THERE ARE CRACKS IN THE BATHROOM AREA.	MARROWBONE DEVELOPMENT CO
S500700	10/3/2001 16:00:26	BLASTING HAS CAUSED THE ROOF TO LEAK. THE SHINGLES AREA ABOUT 12 YEARS OLD. ALSO, THE FOUNDATION IS CRACKED AND THE CABINET DOORS WILL NOT CLOSE. A PRE-BLAST SURVEY WAS CONDUCTED.	MARROWBONE DEVELOPMENT CO
S500700	10/11/2001 14:45:44	DAMAGE TO HIS CHIMNEY AND FLOOR OF HIS HOME. BLASTING FROM MARROWBONE DEV. AROUND SEPT. 11, 2001. THREE SHOTS IN A ROW IN THE EVENING CLOSE TO DARK. NO PRE-BLAST SURVEY WAS COMPLETED ON HIS HOME. HE LIVES ON MARROWBONE RIDGE 1/2 MILE PAST THE NUNS.	MARROWBONE DEVELOPMENT CO
S500997	7/30/2001 11:45:14	MUD RUNOFF OUT OF HOLLOW. THEY HAVE NO DRAINAGE BUT WENT AHEAD AND MINED IT WITHOUT BUILDING A POND. WOULD LIKE THEM TO CORRECT PROBLEM ON THE PRIVATELY OWNED PROPERTY THAT IS BEING MESSED UP.	TRI-COUNTY MINING, INC
S501300	10/19/2001 09:07:10	BLASTING 2 TO 3 TIMES A WEEK AROUND 6:20 TO 6:45. BLASTS HAVE BEEN VIBRATING HOME. CONCERNED CONTINUED HARD BLAST WILL DAMAGE DWELLING. STRONGEST BLAST OCCURRED ON WEDNESDAY EVENING 10-17-01	HANNCO ENERGY CORPORATION
S501300	10/19/2001 13:32:52	BLAST SHAKING HOME. CONCERNED ABOUT STRUCTURAL DAMAGES IF HARD BLASTING CONTINUES. STRONGEST BLAST OCCURRED WEDNESDAY EVENING ABOUT 7:00 P.M.	HANNCO ENERGY CORPORATION
S501300	10/19/2001 14:15:59	WEDNESDAY AROUND 6:30 P.M., BLAST SHOOK HOME. CONCERNED THAT HOUSE MAY BE DAMAGED IF CONTINUED.	HANNCO ENERGY CORPORATION
S501300	10/19/2001 14:30:02	ON WEDNESDAY EVENING AROUND 6:20 P.M., NOTED A "THUMP" SHOOK HOME. CONCERNED FUTURE DAMAGE MAY OCCUR OT HOME, IF HARD BLASTING CONTINUES.	HANNCO ENERGY CORPORATION
S501300	11/8/2001 10:30:28	ON 11-2-01 AT APPROXIMATELY 5:00 P.M. BLAST WAS FELT IN HOME BY OCCUPANTS. BLAST SHOOK WINDOWS IN DWELLING.	HANNCO ENERGY CORPORATION
S501300	12/3/2001 08:57:50	CHAFIN BRANCH OF CHAUNCEY HOLLOW HAS BEEN VERY MUDDY FOR 3 DAYS. CITIZEN IS CONCERNED WATER ISN'T SAFE FOR HORSES TO DRINK AND HAS BEEN HAULING WATER FROM HOME.	HANNCO ENERGY CORPORATION

S501594	6/28/2001 10:00:41	BLASTING FROM STRIP DAMAGED GARAGE. BLASTS HAVE BEEN EXCEPTIONALLY HARD. HE ALSO HAS NEW HOUSE BEHIND HIS CURRENT RESIDENCE WHICH HAS NOT BEEN SURVEYED, MR MOONEY INFORMED DEP THAT HE REQUESTED A SURVEY BUT IT HASN'T BEEN DONE YET. BLASTING FROM STRI	HORIZON RESOURCES, LLC
S501594	7/5/2001 12:00:48	CHURCH PROPERTY (FELLOWSHIP HALL & PARKING LOT) IMPACTED BY MUD & WATER FROM LITTLE UGLY BR. ON 7-29-01. DISCUSSED VIA PHONE IN PAST & RECOMMENDED THAT A WRITTEN COMPLAINT BE FILED WITH WVDEP. THIS WRITTEN COMPLAINT DETAILING DAMAGES & COST RECEIVED BY WV	HORIZON RESOURCES, LLC
S501594	8/1/2001 12:00:25	HOME RENTED BY COMPLAINANT IMPACTED BY MUD & WATER FROM EVENT FROM LITTLE UGLY BRANCH ON 7-29-01. CAUSED BY HORIZON RESOURCES COAL CO.	HORIZON RESOURCES, LLC
S501594	8/1/2001 16:00:01	WATER & MUD DAMAGE TO HOUSE & PROPERTY FROM LITTLE UGLY BRANCH. WATER AND MUD IN WELL. *COMPLAINT FILED 8/1/01 BY PHONE. RECEIVED FOLLOW UP WRITTEN COMPLAINT 9/5/01.	HORIZON RESOURCES, LLC
S501594	8/1/2001 16:00:22	WATER & MUD DAMAGE TO HOUSE & PROPERTY FROM LITTLE UGLY BRANCH. WATER & MUD IN WELL.	HORIZON RESOURCES, LLC
S501594	8/1/2001 16:15:08	PROPERTY IMPACTED BY WATER & MUD FROM LITTLE UGLY BRANCH ON SUNDAY	HORIZON RESOURCES, LLC
S501594	8/1/2001 16:30:56	PROPERTY IMPACTED BY WATER & MUD FROM LITTLE UGLEY BRANCH ON SUNDAY	HORIZON RESOURCES, LLC
S501594	8/1/2001 18:45:07	PROPERTY IMPACTED BY WATER AND MUD FROM LITTLE UGLEY BRANCH ON SUNDAY	HORIZON RESOURCES, LLC
S501594	8/14/2001 10:50:58	PROPERTY DAMAGED BY FLOOD WATER FROM HORIZON RESOURCES LLC POND FAILURE. OUTBUILDING , HOT WATER HEATER, YARD & MAYBE WELL IMPACTED	HORIZON RESOURCES, LLC
S501594	8/14/2001 14:50:40	HOME DAMAGED BY FLOOD WATER FROM HORIZON RESOURCES POND FAILURE. BASEMENT, YARD & PROPERTY DAMAGE.	HORIZON RESOURCES, LLC
S501594	8/17/2001 12:00:07	PROPERTY DAMAGED FROMBY FLOOD WATER FROM HORIZON RESOURCES POND FAILURE. *OPERATION HAS BEEN UNDER ENFORCEMENT ACTION SINCE 7-29-01. COMPLAINANT SHOULD READ THIS FORM CAREFULLY. BACK OF THIS PAGE EXPLAINS CITIZEN RIGHTS.	HORIZON RESOURCES, LLC
S501594	8/21/2001 12:00:06	PROPERTY IMPACTED BY WATER AND MUD FROM LITTLE UGLY BRANCH ON 7-29-01.	HORIZON RESOURCES, LLC
S501594	9/18/2001 12:00:40	PROPERTY IMPACTED BY FLOOD EVENT COMING FROM LITTLE UGLY BRANCH ON 7-29-01. CAUSED BY HORIZON RESOURCES COAL MINE.	HORIZON RESOURCES, LLC
S501594	10/2/2001 10:00:33	HOME IMPACTED BY FLOOD EVENT OF 7-29-01 WHICH CAME FROM LITTLE UGLY BRANCH WHERE HORIZON COAL IS LOCATED. *PREVIOUSLY DISCUSSED WITH MS. ELSWICK ON PHONE. *RECEIVED WRITTEN COMPLAINT THIS DATE.	HORIZON RESOURCES, LLC
S501594	10/11/2001 09:00:57	FLOODING EVENT OF 7-29-01 IN TWILIGHT, WV FLOODED HOUSE/PROPERTY OWNED BY COMPLAINANT. COMPLAINT WAS INITIALLY FILED VIA PHONE (SEE VALERIE ELDRIDGE). THIS REPORT CONFIRMS RECEIPT OF WRITTEN LETTER OF COMPLAINT.	HORIZON RESOURCES, LLC
S501594	11/1/2001 13:30:24	RESIDENCE IMPACTED BY JULY 29TH FLOOD EVENT FROM L. UGLY BRANCH. HAD WATER & MUD DAMAGE & LOST SOME PROPERTY.	HORIZON RESOURCES, LLC
S501594	11/5/2001 08:00:39	HOME & PROPERTY IMPACTED BY 7-29-01 FLOOD EVENT FROM LITTLE UGLY BRANCH.	HORIZON RESOURCES, LLC
S501594	11/14/2001 15:15:02	ENTERED IN ERROR/CORRECTED COMPLAINT WILL FOLLOW/DUST FROM BLASTING SETTLING AND COVERING EVERYTHING	HORIZON RESOURCES, LLC
S501596	11/28/2001 09:10:56	BLASTING NOISE & VIBRATION EXCESSIVE. BLASTS ON 11-20-, 21, 26 & 27 VERY BAD. BLAST ON 21ST THE WORST. SHOTS OCCUR ABOUT 4:30 P.M. *PER S. COCHRAN AT SITE 12-3-01 - MR. DICKERSON ALSO CONTACTED COMPANY FOLLOW UP 12-3-01 BY L T PACK - BLASTING NOISE & V	BANDMILL COAL CORPORATION
S501596	12/18/2001 12:40:16	BLAST ON 12-18-01 AT 12:35 SOUNDED LIKE TRUCK RAN THROUGH HOUSE. WITNESSED HUGE CLOUD OF DUST COMING FROM SHOT.	BANDMILL COAL CORPORATION
S501596	12/18/2001 12:40:57	BLAST ON 12-18-01 AT 12:35 WAS THE WORST HE'S EVER HEARD. SAID HE SAW A LARGE CLOUD OF DUST AND THEN ROCKS FLY OVER THE HILL.	BANDMILL COAL CORPORATION

S501796	8/15/2001 09:20:25	Washed out beside cemetary, tearing up creek. Creek is red. Road is washed out. Blasting has torn up everything. Water is going down the roadway to the cemetary.	ALEX ENERGY, INC.
S501796	8/20/2001 09:30:35	EXCESSIVE SEDIMENTATION & EROSION ALONG LAUREL FORK ALSO, STATES THAT THE EXTRA FLOW OF LAUREL FORK HAS REDIRECTED THE STREAM IN AND AROUND HIS PROPERTY, ERODING OUT ROADS AND FENCE LINES. CITIZEN BELIEVES THAT SURFACE MINING ON SAID PERMIT IS THE CAUSE	ALEX ENERGY, INC.
S501796	10/1/2001 14:14:17	"SPRING IS DRIED UP DUE TO BLASTING - NEED WATER." THIS SRPING IS SUPPOSEDLY BEING TESTED BY ACCULAB. MR. NEECE IS ADAMENT THAT THIS SRPING HAS NEVER GONE DRY.	ALEX ENERGY, INC.
S501796	10/23/2001 05:05:40	JOE MAYNARD CALLED FOR PAUL AND ALLICE NEECE. WATER GET MUDDY AFTER BLASTING. CITIZEN PROVIDED A ONE GALLON SAMPLE OF WATER FROM THE WELL THAT WAS MUDDY TO HAROLD WARD DEP SUPERVISOR. CITIZEN WILL CALL DEP WHEN WELL WATER CLEARS UP SO A PRE-BLAST SAMPL	ALEX ENERGY, INC.
S501796	11/16/2001 12:20:37	MR. NEECE STATED THAT HE IS HIGHLY CONCERNED ABOUT THE LOGGING/GRUBBING ON POINT ABOVE ACCESS ROAD ACROSS FROM HOUSE. HE IS AFRAID A ROCK OR TREE MIGHT COME OVER HILL ONTO ROAD WHILE TRAVELING IT. MR. NEECE ALSO SHOWED ME HIS SPRING BEHIND HOME. HE SAID S	ALEX ENERGY, INC.
S501899	1/16/2002 10:00:00	BLAST "SHOOK HOUSE EXCESSIVELY".	PEN COAL CORP
S501899	1/16/2002 10:35:00	BLAST "SHOOK WHOLE HOUSE". NO DAMAGE REPORTED.	PEN COAL CORP
S501899	1/23/2002 08:30:00	3 DATES: 1/16/02 (2 SHOTS), 1st: 10:30 AM, DAMAGE NOTED TO KITCHEN CABINETS WHERE ANCHORED TO CEILING; 2nd: FURTHER DAMAGE TO SAME. 1/17/02 SHOOK HOUSE & DOORS. 2:10 PM 3rd 1/18/02 12:30 PM "SHOOK REALLY BAD". MEEKS HOME IS APPROX. 900' FROM SHOT. T	PEN COAL CORP
S501900	11/29/2001 09:00:55	BLASTING ON 11/28 AT 11:25 AND 5:25 SHOOK EVERYTHING IN THE HOUSE. ALSO, BLASTING ON 11/29 AT 8:45 A.M. SHOOK THE STUFF IN THE HOUSE. THEY BLAST ABOUT TWICE A DAY AND IT S MUCH WORSE SINCE THE TRI-COUNTY STRIP HAS BEEN BOUGHT BY SOMEONE ELSE. THEY DON'T	TRI-COUNTY MINING, INC
S501900	11/29/2001 09:02:32	BLASTING ON 11/27, 28 AND 29 WAS VERY HARD (VIBRATION). CALLER SAID THERE IS NO SENSE IN THEM BLASTING THAT HARD. SHE SAID IT SCARED THEM TO DEATH IT WAS SO LOUD.	TRI-COUNTY MINING, INC
S501900	11/29/2001 09:04:09	BLASTING ON 11/27 AT 4:30, 11/28 AT 5:30 AND 11/29 AT 8:48 WAS VERY HARD (VIBRATION). THERE IS NO SENSE IN THEM BLASTING THAT HARD. SHE SAID IT SCARED THEM TO DEATH IT WAS SO LOUD.	TRI-COUNTY MINING, INC
S501900	11/29/2001 09:23:45	CALLER SAID BLASTING ON 11/28 AT 8:57 P.M. WAS VERY HARD (VIBRATION). THEY ALSO BLASTED ON 11/29 AT 8:48 A.M.	TRI-COUNTY MINING, INC
S501900	12/3/2001 12:10:39	BLASTIN WAS TERRIBLE LAST WEDNESDAY (11/28) AND THURSDAY MORNING 9/11/29) AND SLIGHTLY BAD ON SATURDAY AROUND 2:00 (12/1). HE HAS A CRACK IN HIS BASEMENT WALL AND IS EXPECTING MORE DAMAGE IF THEY CONTINUE TO BLAST AS HARD AS THEY HAVE BEEN. HE THINKS THE B	TRI-COUNTY MINING, INC
S501900	12/3/2001 12:10:42	BLASTING AT 11:30 ON 11/28 AND 8:00 ON 11/29 SHOOK ENTIRE HOUSE.	TRI-COUNTY MINING, INC
S502095	9/17/2001 14:27:00	PUT OFF SHOT AT 1:00 PM. KNOCKED OUT POWER ALONG DOG HOLLOW ROAD. ROLLED ONE ROCK AS BIG AS A 4 WHEELER AND ONE ROCK THE SIZE OF A VAN INTO COUNTY ROAD.	HOBET MINING INC
S502095	11/5/2001 13:56:00	RESIDENT PHONED OEB. LOUD BLAST 11/9/1 1340 HRS. REQUESTING SEISMOGRAPH AT HIS RESIDENCE. WHEN CONTACTED HE STATED THAT HE ORDINARILY DIDN'T COMPLAIN ABOUT BLASTS BUT WAS CONCERNED FOR HIS WELL.	HOBET MINING INC
S502095	12/13/2001 16:30:00	BAD BLAST ON 12/12/01 AT 3:30 PM. ROUGHEST BLAST SINCE BLASTING NEAR WALLS HOME.	HOBET MINING INC
S502095	1/8/2002 19:50:00	HARD BLAST AT ABOUT 3:30 SHOOK OVERHEAD LIGHT IN LIVINGROOM.	HOBET MINING INC
S502097	8/12/2001 14:00:26	DUST IS NOT BEING CONTROLLED BY THE COMPANY	WHITE FLAME ENERGY INC

S502697	10/16/2001 10:15:59	WELL IS DRY. SHE HAD COMPLIANCE MONITORING TEST HER WATER. SHE HAS 2 WELLS AND A NATURAL SPRING AND THERE ISN'T ANYTHING SEEPING FROM THE SPRING AND THE WELL IS DRY.	WHITE FLAME ENERGY INC
S502697	10/26/2001 10:24:01	WELL HAS BEEN DRY FOR ABOUT A MONTH. SHE HAD NOT CALLED BEFORE NOW BECAUSE THEY THOUGHT IT MIGHT RECHARGE BUT IT HASN'T.	WHITE FLAME ENERGY INC
S502697	11/2/2001 11:35:16	INCIDENT REPORT STATED THAT GEORGE MAYHEW CALLED IN COMPLAINT AS A REPRESENTATIVE FOR VERNON EDWARDS ALLEGING A DUST PROBLEM AROUND 10:19 AT FOOT OF RAGLAND MOUNTAIN.	WHITE FLAME ENERGY INC
S502697	11/15/2001 12:45:32	DUST IS TERRIBLE FROM TRUCKS TRAVELLING ON MYSTERY MOUNTAIN	WHITE FLAME ENERGY INC
S502697	11/27/2001 08:42:44	DUST FROM BLASTING IS COVERING HOUSES, CARS AND LAWN FURNITURE	WHITE FLAME ENERGY INC
S502697	11/27/2001 13:02:31	DUST FROM BLASTING IS SO BAD THEY CAN'T SIT OUTSIDE THEIR HOUSE.	WHITE FLAME ENERGY INC
S502696	7/12/2001 08:35:00	Concerned about blasting heard 7/11/01 at 18:05. Advised by CRMW to call DEP office. (Complaint forwarded to Welch DEP by Oak Hill office).	INDEPENDENCE COAL COMPANY, INC.
S502696	9/17/2001 18:25:25	HER SON FELT A BLAST AT THE MARSH FORK ELEMENTARY SCHOOL AROUND 12 NOON TODAY (9-17-01). HE THOUGHT IT WAS A BOMB EXPLODING.	INDEPENDENCE COAL COMPANY, INC.
S502696	12/4/2001 11:00:13	BLAST ON SATURDAY 12-1-01 AT 1315 SHOOK HIS HOUSE. MR BRADFORD SAW THE SMOKE FROM THE BLAST AND COULD TASTE IT.	INDEPENDENCE COAL COMPANY, INC.
S502696	12/17/2001 16:44:22	BLASTING ON 12-17-01 AT 1636 AND 1638 SHOOK HOUSE	INDEPENDENCE COAL COMPANY, INC.
S502696	12/18/2001 08:10:53	LOUD BLASTING. HOME SHOWING CRACKS IN CEILING AND WALLS SHE BELIEVES ARE CAUSED BY BLASTING. SHE HAS NTO RECEIVED A CALL FROM THE INSPECTOR. THE OAK HILL OFFICE SAID HE WOULD CONTACT HER FROM COMPLAINT ON 11-2-01. BLASTS ON 12-17-01 @ 1612 & 1637 - 12-19	INDEPENDENCE COAL COMPANY, INC.
S502696	12/18/2001 15:21:01	2 OR 3 BLASTS. SECOND BLAST LOUDER AND MORE VIBRATION. NOTICED CRACKING IN DINING ROOM/FLORIDA ROOM. STATED HE HAS PREVIOUSLY HAD 2 BROKEN WINDOWS REPLACED. DOESN'T KNOW IT WAS CAUSED BY BLASTING OR NOT. SHOT ON 12-17-01 BETWEEN 1400 AND 1600. MR. PETTR	INDEPENDENCE COAL COMPANY, INC.
S502696	1/7/2002 16:25:44	BLAST ON 1-5-02 @ 1824 SHOOK THE WINDOWS IN HER HOUSE AND SHE FELT HER FEET SHAKING.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/8/2002 16:29:04	BLAST ON 1/8/02 AT 4:20 PM SHOOK HER HOUSE AND KNOCKED THINGS OFF WINDOW SILL	INDEPENDENCE COAL COMPANY, INC.
S502696	1/8/2002 16:30:37	BLAST ON 1/8/02 AT 1820 SHOOK MOBILE HOME REALLY BAD, THINGS FELL OFF COUNTERS IN HOME. "REALLY STRONG BLAST"	INDEPENDENCE COAL COMPANY, INC.
S502696	1/8/2002 16:35:16	BLAST AT APPROXIMATELY 1825 ON 1/8/02 RATTLED WINDOWS, KNOCKED THINGS OFF OF WALLS & CRACKED DRYWALL.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/10/2002 15:26:53	ON 1/10/02 AT 1109 A BLAST SHOOK HER HOME, WINDOWS BROKEN, HOUSE BEING TORN APART. THIS BLAST BROKE GLASS TABLE PART OF TV STAND.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/10/2002 16:15:40	LARGE BLAST ON 1/16/02 AT 1610 SIMILAR TO SHOT COMPLAINED ABOUT ON 1/8/02.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/10/2002 16:23:32	BLAST ON 1/10/02 @ 1610. SIMILAR TO ONE ON 1/8/02. THINGS KNOCKED OVER.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/14/2002 15:30:25	THIS BLASTING COMPLAINT WAS FORWARDED TO LOGAN OFFICE FROM MIKE FUREY FROM DEP OAK HILL OFFICE. COMPLAINANT INDICATED 15 SHOTS SHOOK HER HOUSE.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/17/2002 10:42:11	BLASTING ON 1/16/02 @ 10:30 AM SHOOK HOUSE.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/22/2002 16:10:02	BLASTING ON 1-19-02 @ 1329. HOUSE SHOOK AND THEY FELT IT IN THEIR FEET.	INDEPENDENCE COAL COMPANY, INC.
S502696	1/23/2002 16:30:36	BLASTING ON 1-23-02 @ 1626 LASTED 3 TO 4 SECONDS.	INDEPENDENCE COAL COMPANY, INC.
S502599	10/11/2001 14:46:03	COMPLAINT FILED PREVIOUSLY; THIS WAS A FOLLOW UP INSPECTION ON WHETHER THE PRE-BLAST SURVEY SHOULD HAVE BEEN COMPLETED.	MARROWBONE DEVELOPMENT CO
S502698	7/25/2001 14:37:56	Blasting at 14:35 shook entire house... shook clock off the wall.	PEN COAL CORP
S502698	8/4/2001 11:54:10	2 complaints : (8-4-01 - 11:54) "house shook and water came gushing down creek, well gone dry." (2) Blast shook house.	PEN COAL CORP

S502698	8/9/2001 14:29:06	BLAST SHOOK HOUSE ("VIBRATED FOR 5 MINUTES") ("FELT LIKE AN EARTHQUAKE") NO DAMAGE NOTED FROM THIS BLAST. SHOT WAS FIRED ON 8/9/01 AT 14:29.	PEN COAL CORP
S502698	8/9/2001 14:30:00	"WHOLE HOUSE SHOOK" AFTER BLAST WAS FIRED.	PEN COAL CORP
S502698	10/22/2001 14:04:00	SMOKE & BURNING LEAVES FROM FOREST FIRE ALLEGEDLY STARTED BY PERMITTEE IS COVERING HIS HOUSE AND CAUSING HIM AND FAMILY BREATHING PROBLEMS.	PEN COAL CORP
S502698	10/24/2001 14:10:00	BLASTING FROM PEN COAL IS "TEARING UP HOME". AND CAUSING "DAMAGE TO (HIS) WELL".	PEN COAL CORP
S502698	10/24/2001 14:35:00	WELL IS GOING DRY. SULFUR, IRON AND OIL IS IN WELL WATER. CITIZEN FEELS THAT BLASTING FROM PEN COAL IS CAUSING THESE PROBLEMS.	PEN COAL CORP
S502698	10/25/2001 14:25:00	CITIZEN CALLED TO VOICE CONCERN ABOUT FUTURE RESULTS OF "VERY HEAVY BLASTING" TO HIS HOME AND PROPERTY. HE STATED THAT HE COULD INCURE DAMAGE. CITIZEN LIVES APPROX. 6000 FT. FROM LAST SHOOTING ACTIVITY AND SAME DISTANCE FROM FUTURE ACTIVITY.	PEN COAL CORP
S502698	10/30/2001 13:52:00	CITIZEN STATES THAT DAMAGE WAS DONE TO THE "CEILING, SHEETROCK, BLOCK AROUND HOUSE." ALSO, DOOR TO HOUSE IS "DRAGGING WHEN YOU SHUT IT". CITIZEN LIVES APPROX. 3000 FT. FROM LAST SHOOTING ACTIVITY AND APPROX. 3500 FT. FROM FUTURE ACTIVITY.	PEN COAL CORP
S502698	11/5/2001 16:03:00	"BLAST SHOOK WHOLE HOUSE". BLAST WAS AT 16:03 ON 11/5/01. CHECK OF LOG SHOWS SHOT IN COMPLIANCE.	PEN COAL CORP
S502698	11/28/2001 10:22:00	SHOT SHOOK WHOLE HOUSE.	PEN COAL CORP
S503095	8/16/2001 21:30:26	MUDDY MURKY WATER IN FREEZE FORK . NOT BLACK, BUT LIKE A MINE PIT WAS OPENED UP - LOOKED AT GEORGE'S CREEK, IT'S CLEAR	HIGHLAND MINING COMPANY
S503095	8/23/2001 10:30:15	RETURNED CALL TO UPDATE MR. ALTIZER ON FINDINGS OF COMPLAINT 8-16-01. MRS. ALTIZER SAID HER GRANDDAUGHTER FOUND DEAD MINNOWS IN DINGESS RUN NEAR OLD STONE CHURCH ON 8-17-01, BELIEVES THE FISH WERE KILLED BY THE PIT WATER DISCHARGE FROM FREEZE FORK ON 8-1	HIGHLAND MINING COMPANY
S503097	12/28/2001 15:56:00	BLASTING ON THE FOLLOWING DATES & TIMES SHOOK ENTIRE HOUSE & RATTLED THE WINDOWS: 12/28/01 1555, 12/28/01 1639 AND 1/3/02 1628. RECEIVED ADDITIONAL COMPLAINT ON 1/7/02 FOR A BLAST ON 1/7/02 AT 1541.	ASSET MANAGEMENT GROUP INC
S503195	12/28/2001 15:55:00	BLASTING ON THE FOLLOWING DATES & TIMES SHOOK ENTIRE HOUSE & RATTLED THE WINDOWS: 12/28/01 1555, 12/28/01 1639, AND 1/3/02 1628. RECEIVED ADDITIONAL COMPLAINT ON 1/7/02 FOR A BLAST ON 1/7/02 AT 1541.	INDEPENDENCE COAL COMPANY, INC.
S503198	8/10/2001 13:00:34	MR. VARNEY SAYS HIS PUMPHOUSE IS CRACKED (DAMAGED) ALONG WITH HIS WATER QUALITY. WATER IS MUDDY. HAS BOUGHT NEW HOT WATER HEATER. IS HOOKED UP ON PUBLIC WATER. LANTZ RANKIN CAME TO COLLECT WATER SAMPLE AROUND AUG. 1. RESIDENT SAYS HE ONLY WANTS DAMAGES T	LITTLE BOYD COAL CO., INC.
S504189	8/27/2001 15:30:24	Citizen complains of an excessively hard blast at approximately 3:26 p.m. on 8/27.	ALEX ENERGY, INC.
S504189	9/5/2001 09:15:41	CITIZEN WAS EMPLOYEE OF REGIONAL JAIL AT GASTON CAPERTON DRIVE. STATED THAT COAL TRUCKS WERE TRACKING DIRT & SEDIMENTATION ONTO GASTON CAPERTON DRIVE. THIS WAS HAPPENING IN THE SWITCHBACK WHERE COAL TRUCKS WERE LEAVING THE REFUSE AREA.	ALEX ENERGY, INC.
S504189	9/14/2001 14:29:22	BLAST TODAY 2:20 TO 2:25 P.M. SHOOK HOME EXCESSIVELY.	ALEX ENERGY, INC.
S504189	9/19/2001 15:00:18	VERY BAD BLAST AT 2:07 P.M., 9-18-01.	ALEX ENERGY, INC.
S505989	10/17/2001 13:40:17	BLASTING DAMAGE TO HOME & PROPERTY. NO TIME OR DATES OF BLASTS GIVEN. STARTED ABOUT ONE YEAR AGO. HAD SURVEY DONE BY COMPANY. "RECEIVED COMPLAINT FROM BEVERLY ROEHER ON 10-22-01. "REFERRED FROM OEB 10-17-01.	ALEX ENERGY, INC.
S505989	10/19/2001 13:29:37	BLAST AT 1:10 - 1:15 SHOOK GROUND & IS AFRAID OF IMPACT TO WELL. LIVES IN COVE GAP BESIDE HORN HALL. "RECEIVED COMPLAINT FROM M. MCDONALD 10-22-01 8:00 A.M. FOLLOW UP BY L T PACK 01-03-2002	ALEX ENERGY, INC.
S505989	11/1/2001 11:14:29	BLASTING ON OR ABOUT 11-01-01 9:15 A.M. DAMAGED HOME AND IMPACTED WELL. COMPLAINT RECEIVED FROM STAFF 11-5-01. FOLLOW UP BY L T PACK ON 01-03-2002 TO TERMINATE	ALEX ENERGY, INC.

S505380	11/28/2001 16:13:25	ADDENDUM TO COMPLAINT PREVIOUSLY REFERRED TO OFFICE OF EXPLOSIVES AND BLASTING. MR HALL REPORTS WELL IS GOING DRY AND NOW CAN RUN PUMP NO LONGER THEN 15-20 MINUTES WITHOUT LOSING WATER.	ALEX ENERGY, INC.
S505389	11/28/2001 16:21:52	ADDENDUM TO COMPLAINT PREVIOUSLY REFERRED TO OFFICE OF EXPLOSIVES AND BLASTING. MR RUNYON REPORTS WELL IS GOING DRY	ALEX ENERGY, INC.
S505389	12/4/2001 12:00:06	MR. RUNYON CONTACTED WVDEP ABOUT BLASTING ON THE FOLLOWING DATES. 10/19/01; 11/2,6,8,28,29/2001; 12/3/01. THIS MR-35 DOCUMENTS THESE CALLS. FOLLOW UP BY L T PACK ON 01-03-2002 TO TERMINATE	ALEX ENERGY, INC.
S505389	12/4/2001 12:00:54	MR. HALL CONTACTED WVDEP ABOUT BLASTING ON THE FOLLOWING DATES: 10/19, 23, 24, 31, 2001 - 11/1,6 8, 28, 29, 2001 AND 12-3-2001. THIS MR-35 DOCUMENTS THESE CALLS.	ALEX ENERGY, INC.
S505389	1/10/2002 15:10:46	BLAST SHOOK HOUSE VERY HARD; BLASTING DIRECTLY BEHIND HOME, CRACKS ARE BIGGER; LIVE BESIDE	ALEX ENERGY, INC.
S505389	1/28/2002 14:00:13	BLASTING DAMAGES TO HOUSE. THIS IS CONTINUATION OF EXISTING COMPLAINT	ALEX ENERGY, INC.
S505389	1/28/2002 14:00:52	BLASTING DAMAGING HIS HOME. THIS IS CONTINUATION OF EXISTING COMPLAINT	ALEX ENERGY, INC.
S505459	8/31/2001 16:10:42	VERY HARD BLAST AT 4:00 P.M., STORM DOOR OPENED. WILD & CRAZY BLASTING.	ALEX ENERGY, INC.
S505489	9/3/2001 10:43:07	BAD BLAST AT 10:45 A.M. TODAY 9-6-01, OEB INSPECTORS WERE AT HIS HOUSE AND HAD GONE ON THE JOB ABOUT 30 MINUTES EARLIER.	ALEX ENERGY, INC.
S505489	9/24/2001 16:05:30	VERY BAD BLAST AT 4:00 P.M., 9-24-01.	ALEX ENERGY, INC.
S505489	9/25/2001 12:02:25	HARD BLAST AT 12:01 P.M. TODAY	ALEX ENERGY, INC.
S505792	10/3/2001 09:50:09	BLASTING RATTLED WINDOWS & SHOOK HOUSE.	ELK RUN COAL COMPANY, INC.
S505792	10/3/2001 09:51:00	BLASTING KNOCKED AN ORNAMENT OFF THE WALL. BLAST HAVE BEEN GETTING STRONGER THE LAST COUPLE OF WEEKS.	ELK RUN COAL COMPANY, INC.
S505792	1/18/2002 10:00:00	BLASTING SHAKING HOUSE & WINDOWS.	ELK RUN COAL COMPANY, INC.
S505899	12/5/2001 15:20:00	DUST BAD IN COMMUNITY.	INDEPENDENCE COAL COMPANY, INC.
S507986	12/6/2001 08:00:04	CITIZEN LIVES NEAR LOWE CEMETERY ON RUM CREEK AND DUST IS THE WORST HE HAS EVER SEEN. SAYS HE CAN'T BELIEVE THAT MUCH DUST COULD BE LEGAL.	APOGEE COAL CO DBA ARCH OF WEST VIRGINIA, INC.
S508488	10/23/2001 09:05:40	JOE MAYNARD CALLED FOR PAUL AND ALLICE NEECE. WATER GET MUDDY AFTER BLASTING. CITIZEN PROVIDED A ONE GALLON SAMPLE OF WATER FROM THE WELL THAT WAS MUDDY. TO HAROLD WARD DEP SUPERVISOR. CITIZEN WILL CALL DEP WHEN WELL WATER CLEARS UP SO A PRE-BLAST SAMPL	ALEX ENERGY, INC.
S600989	7/17/2001 12:07:44	Mr. Wagner called John Vernon at home after work hours on 7/16/01 complaining of dust from the strip mine.	APPALACHIAN MINING INC
U001583	10/5/2001 14:29:00	Built house 6 years ago. Back porch sunk about 6 inches and also pisses in yard.	ANKER WEST VIRGINIA MINING COMPANY, INC.
U001583	10/22/2001 14:00:00	On Patsy Store Road, big hole near home - 200 feet from home. Tygart Valley Mining or Anker Energy's Sehtential Mine may be responsible.	ANKER WEST VIRGINIA MINING COMPANY, INC.
U001583	12/17/2001 15:55:00	Hole in ground under trailer has air coming from it with some pressure. Garry Coberly, Emergency Engineer with the Division of Abandoned Mine Lands and Reclamation investigated first and found the air to contain methane and to be oxygen deficient. The w	ANKER WEST VIRGINIA MINING COMPANY, INC.
U001583	1/3/2002 14:15:00	See attached written complaint. This complaint is directly related to a complaint received 12/17/01 concerning methane gas venting from a water well under Mr. Greer's trailer.	ANKER WEST VIRGINIA MINING COMPANY, INC.
U001583	1/24/2002 16:10:00	Gas coming from his well. Has talked to Anker.	ANKER WEST VIRGINIA MINING COMPANY, INC.
U001963	8/4/2001 14:45:00	Diminished quantity of water in her well due to mining of Eastern Associated Coal Company's Federal #2 Mine.	EASTERN ASSOCIATED COAL CORP.
U001963	11/2/2001 09:00:00	Water loss from springs which supply drinking water as well as springs recharging farm pond and creek.	EASTERN ASSOCIATED COAL CORP.
U002093	1/16/2002 10:00:10	LIVES AT LINDYTOWN. YARD; GARAGE & HOUSE IS SETTLING & CRACKING. MAY BE SUBSIDENCE OR BLASTING, DOESN'T KNOW FOR SURE WHAT IS GOING ON. HAS SEVERAL SURVEYS DONE ON RESIDENCE.	EASTERN ASSOCIATED COAL CORP.
U002093	1/24/2002 12:00:49	SUBSIDENCE DAMAGE AT HOUSE IN LINDYTOWN BASEMENT WALLS ARE CRACKED AND LEANING.	EASTERN ASSOCIATED COAL CORP.

U002093	1/28/2002 11:21:21	SUBSIDENCE CRACK OR HOLE IN DRIVEWAY NEED TO BE CHECKED. ALSO BLASTING SHAKING TRAILER. "LIVES ACROSS FROM	EASTERN ASSOCIATED COAL CORP.
U002484	10/12/2001 15:00:00	Equipment on landowners property. Wondering about legal right and wanted to know what is going on.	ENERGY MARKETING COMPANY, INC.
U002584	7/31/2001 08:46:00	CITIZEN FEELS THAT CRACK UNDER THEIR MOBILE HOME IS MINE RELATED AND IS EMITTING BASES WHICH MAKE THEM SICK. SYMPTOMS: NAUSEA, WEAKNESS, LIGHT HEADED, MUSCLE ACHES. DOG HAS SHOWED ALLERGIC SYMPTOMS WHEN TIED TO FRONT PORCH, DOES NOT WHEN MOVED TO BACK.	ROCKSPRING DEVELOPMENT INC
U003383	7/25/2001 12:00:00	Longwall is approaching their 340 acre farm. Previous panel adjacent to McCardle property allegedly caused loss of spring. Permittee has replaced spring. Citizen wants statement from permittee or DEP as to the cause of water loss. Also there is contro	MCELROY COAL COMPANY
U003383	8/8/2001 12:00:00	Not properly notified of mining under her property where she lives and also C. E. Newlon property which she purchased. Also, claims no offer of compensation for subsidence damage to barn from company.	MCELROY COAL COMPANY
U003383	8/21/2001 14:00:00	Water loss to three springs and one cased well on property purchased from C. E. Newlon. Requests mining date information for father's property (George Koontz) and also requested review of information concerning streams. Upper Bowman Creek and Middle Bow	MCELROY COAL COMPANY
U003383	10/3/2001 13:30:00	Stated that previous repairs to surface lands had left a couple of areas where cracking was still visable. One area above camping trailer and one area in second field. Also, believes that water drinker system are inadequate because of freezing up sever	MCELROY COAL COMPANY
U003383	11/12/2001 09:00:00	Claims additional surface lands need repaired from subsidence damage. These areas were not looked at under original 04/25/01 investigation on June of 2000. Supervisory review for Governor's office	MCELROY COAL COMPANY
U003383	1/2/2002 09:00:00	Subsidence related water loss to residence. Also impact to springs used for domestic and agricultural uses. Potential impact to farm pond and surface lands. Structrual damages to residence.	MCELROY COAL COMPANY
U003383	1/24/2002 12:00:00	Water loss replacement at barn is not adequate.	MCELROY COAL COMPANY
U005683	8/30/2001 10:15:08	RESIDENT IS NOW CONNECTED TO PUBLIC WATER FROM CHATTAROY. RESIDENT IS SATISFIED WITH WATER.	RAWL SALES & PROCESSING CO
U005683	8/30/2001 11:00:57	NO COMPLAINT	RAWL SALES & PROCESSING CO
U005683	8/30/2001 11:25:10	NO COMPLAINT/ CALLED RESIDENT TO CLOSE COMPLAINT	RAWL SALES & PROCESSING CO
U005683	8/30/2001 11:30:34	NO COMPLAINT	RAWL SALES & PROCESSING CO
U005683	8/30/2001 11:40:49	NO COMPLAINT	RAWL SALES & PROCESSING CO
U005683	8/30/2001 11:48:36	NO COMPLAINT	RAWL SALES & PROCESSING CO
U005683	8/30/2001 13:07:31	NO COMPLAINT	RAWL SALES & PROCESSING CO
U005683	8/30/2001 13:15:16	No complaint	RAWL SALES & PROCESSING CO
U005683	8/30/2001 13:22:34	No complaint.	RAWL SALES & PROCESSING CO
U007083	8/14/2001 13:59:00	Received complaint via DEP Environmental Advocate's Office - Brent Wiles received original call. Citizen is concerned about the proposed land-use change from "pasture" to "light industry" at the Hagan's Shaft. He is inquiring as to the type of industry.	CONSOLIDATION COAL COMPANY
U007283	8/19/2001 14:00:00	Worried about possible contamination of water well by the Old Bethlehem mine. Water contains iron and is very hard.	ENERGY MARKETING COMPANY, INC.
U007584	3/25/2001 11:27:00	Dust and mud on county road.	NEWHALL POCAHONTAS ENERGY, LLC
U007584	8/28/2001 13:00:00	Coal company constructing haulroad along county road at intersection of RT 16 and dust from Rt 16.	NEWHALL POCAHONTAS ENERGY, LLC
U007584	10/11/2001 15:00:00	Dust from loadout site.	NEWHALL POCAHONTAS ENERGY, LLC
U007584	10/11/2001 15:01:01	Dust from loadout site.	NEWHALL POCAHONTAS ENERGY, LLC
U007584	1/4/2002 13:25:00	Dust from county road.	NEWHALL POCAHONTAS ENERGY, LLC

U007893	8/3/2001 10:00:00	Initial complaint phoned to Supervisor Terry Fleming on 08/02/01. Referred to Inspector Terry Washburn who contacted complainant 08/03/01. Follow-up letter received 08/14/01 dated 08/04/01 (attached). Citizen complains of damage to meadow by subsidence	CONSOLIDATION COAL COMPANY
U008693	1/28/2002 14:00:00	Cindy Maynard with the Environmental Advocates office referred this complaint. Citizen does not have a complaint, but is requesting any information available regarding the nature of a pipe in a field on property they recently acquired. Specifically - is	CONSOLIDATION COAL COMPANY
U014892	10/2/2001 09:49:00	Problem with beaver pond and a power line near Green Valley Coal Company.	GREEN VALLEY COAL COMPANY
U014892	10/26/2001 10:00:00	Thinks power line going to mine is a fire hazard. Green Valley plans to move it but haven't yet.	GREEN VALLEY COAL COMPANY
U020483	8/6/2001 09:01:00	U.S. Steel Mine discharges, damaging aquatic life in Indian Creek.	U. S. STEEL MINING COMPANY, LLC
U020483	8/16/2001 09:15:00	He feels methane gas is bubbling from the stream in front of his residence but does not want anyone from DEP to check it.	U. S. STEEL MINING COMPANY, LLC
U020483	10/15/2001 11:00:00	Indian Creek has been damaged by mine subsidence in that flows are non-existent in some areas.	U. S. STEEL MINING COMPANY, LLC
U020483	10/12/2001 06:00:00	Stream bed fractured in Indian Creek at the location of a gas line crossing Indian Creek. Gas line crosses Indian Creek between the Don Portes property and her property.	U. S. STEEL MINING COMPANY, LLC
U020483	1/14/2002 09:00:00	Water discharging from Trail fork de-watering borehole contains some chemical causing her to be ill. Complainant has requested MSDS at any known chemical additives to the water.	U. S. STEEL MINING COMPANY, LLC
U020483	1/22/2002 15:12:37	Methane gas bubbling from stream in front of his residence.	U. S. STEEL MINING COMPANY, LLC
U022300	7/30/2001 12:18:00	The old drift mouth to mines is open. (Chicopee Coal Co, Inc.) Kids could go inside. Has had top in mines. Coal Co. reopened with dozers and has been opened for 3-4 months. Located on Neely Backus property. (Possibly in he name of Burgess at this tim	CHICOPEE COAL COMPANY, INC.
U026800	8/6/2001 11:15:57	Mr. Grieves had to follow two of the coal trucks this morning between the RR bridge and Lick Branch. Clouds of dust created when trucks pull off onto berm of one lane road. Mr. Groves has trouble breathing.	TERRY EAGLE COAL COMPANY LLC
U041900	11/15/2001 15:15:00	Dust from county road on home	BLACK WOLF MINING COMPANY
U046200	8/7/2001 11:07:00	Water came from an Old Abandoned Mine and flooded her basement area.	SHANE COAL COMPANY
U051600	8/7/2001 11:00:00	Well is dry.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:00:00	Well is no good. Has to haul water. Wants a public water system installed on Hickory Flats area.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:02:00	Drilled well in 1993. 140 feet deep. Went dry in 1997. Cleaned out 2 years ago. Went 2 feet deeper then quit making water.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:03:00	Has a 20 year old well, 198 feet deep. Used to have good water. Now has to leave off 3 or 4 days to have water. Lost to underground mining and blasting. Has had problems with well for 10 years.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:05:00	Nese water. Wants public water system put in area.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:10:00	Hand dug well, 25 feet deep. Dug in 1991. Always had a water shortage. Wants public water system constructed.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:15:00	Hauls water. Afraid to drill a well. Wants a public water system put in area.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:20:00	Has to haul water. Wants public water system put in.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:25:00	Has to haul water. Wants public water system put in.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:31:00	Has a 6 ft. deep spring. Dug in 1993. Always had very limited use. Wants public water system put in.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:35:00	Has 2 wells. 45 feet deep well drilled in 1800's. In 1979, drilled 115 feet deep well. Both have always had limited use. Wants public water system put in.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:40:00	Blasting and underground mining caused loss of well. Drilled in 1975, 110 feet deep. Used to have plenty of water. Now has limited use. Trouble started four years ago. Two people use well. Fast shower only. No laundry. This condition last all year.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 14:50:00	Already investigated by DEP, DMR. Blasting caused well loss. Keith Chapman drilled well. He said it had a slow recharge 175 gallons. 550 feet deep which is 50 feet below coal. Have $7,000 invested in well. Coastal brought them water three times.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/9/2001 15:00:00	Drilled a new well in the last few months. Don't get much water out of it.	COASTAL COAL-WEST VIRGINIA, LLC

U051600	8/9/2001 18:30:00	Has to haul water. Has bad well. Wants public water system put in.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/13/2001 16:00:00	Lived in present house 6 years. Has a drilled well 150 feet deep. Previous owner did not have pump in well. Ha installed pump and has never really had enough water the whole time.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/27/2001 14:00:00	Always had water. Water level went down in dug well last year. Water is discolored when it rains. Sometimes it doesn't taste good.	COASTAL COAL-WEST VIRGINIA, LLC
U051600	8/27/2001 16:00:00	Underground mining caused water loss in his two wells	COASTAL COAL-WEST VIRGINIA, LLC
U051600	11/2/2001 10:12:00	Blasting has caused damage to house and water well. Blast occurred during the week of October 21 - 27, 2001 in the morning.	COASTAL COAL-WEST VIRGINIA, LLC
U064600	7/30/2001 09:15:13	HILLSIDE SLIPPED - 400 FT. UP ON HILL AND BLOCKED CREEK HALFWAY - BEHIND HOUSES ON MARROWBONE CREEK 6.4 MILE UP MARROWBONE CREEK	MARROWBONE DEVELOPMENT CO
U100798	1/8/2002 16:20:00	Lost water level in water well.	COASTAL COAL-WEST VIRGINIA, LLC
U101492	9/24/2001 08:30:00	No water, well caved in. Suspect White Tail Mine.	COASTAL COAL-WEST VIRGINIA, LLC
U102092	11/15/2001 13:30:00	Mr. Vance wanted to go on record as having noticed the occurrence of cracks in concrete steps and in the front block wall of his house and in blocks adjacent concrete lintels above his garage doors in the event that further damage might occur should it be	M & J COAL COMPANY, INC.
U102591	7/16/2001 12:00:00	Has severe slip beside house and runs downslope to Boggs Run. Danger to his property and home. Believes might be mining related.	CONSOLIDATION COAL COMPANY
U102591	10/9/2001 07:00:00	E-mail dated 10/01/01 at 12:49 AM to Ron Sturm at Philippi Office. Delivered by M. Carlco to me. Major complaint of disturbance within 300' of Kudlak and Greg Johnson homes. Other questions and issued asked also.	CONSOLIDATION COAL COMPANY
U102591	11/6/2001 12:00:00	Structural damage and problems with trailer due to subsidence from longwall mining in 1997. Trailer out of level, twisted, under-pinning needs fixed. Some concern about surface land movement also.	CONSOLIDATION COAL COMPANY
U102591	12/26/2001 09:00:00	Sent E-mail to office. 12/19/2001, was reviewed 12/26/2001 at office. Believes moving closer to homes where off permit before. Water laying on gob pile. Dirt and gray matter on some of pile. Using trucks to haul dirt from pile to another location.	CONSOLIDATION COAL COMPANY
U102591	1/22/2002 11:30:00	Lives on Golden Ridge Road and claims subsidence related damage to this garage in that floor has cracked. He believes that he will experience other damages to his home. He believes that he was not properly notified of mining.	CONSOLIDATION COAL COMPANY
U102691	11/15/2001 10:00:00	Water well is dry. Complaint was reported to Coastal Coal-WV on 11/14/2001. Water well is 14' deep, stone lined.	COASTAL COAL-WEST VIRGINIA, LLC
U102691	11/15/2001 10:02:00	No water in well. What does come out is red. Have never had any trouble with water before.	COASTAL COAL-WEST VIRGINIA, LLC
U301894	7/11/2001 10:00:00	Subsidence crack on/near property and has lost water well.	ELK RUN COAL COMPANY, INC.
U301894	7/11/2001 10:00:01	Subsidence crack on/near property and has lost water well.	ELK RUN COAL COMPANY, INC.
U301894	7/11/2001 10:00:02	Subsidence crack on/near property and has lost water well.	ELK RUN COAL COMPANY, INC.
U303289	7/10/2001 11:00:00	Complainant says that it appeared that water coming off of U-2032-99 could be coming from the backfilled portal areas and she was concerned that the mine could blow out.	PIONEER FUEL CORPORATION
U304291	7/26/2001 12:15:01	Sulfur smell from past AML project and diesel smell from Hughes Creek.	CANNELTON INDUSTRIES INC
U304291	1/7/2002 13:35:21	Loss of water in community on 1/3/02. (Same system as Mr. David Sabed). Received complaint from OEB.	CANNELTON INDUSTRIES INC
U304291	1/7/2002 15:39:15	Water supply has diminished to the point they have no supply. This affects 12-15 homes in the area fed from an abandoned 5-Block mine into a local piped system.	CANNELTON INDUSTRIES INC
U304292	12/20/2001 07:30:00	Bridge is closed crossing Hazy Creek. Performance Coal Company is hauling coal through the creek. Trucks hauled all night long. State Police contacted but advised that to was not their jurisdiction.	PERFORMANCE COAL COMPANY
U304292	12/20/2001 09:15:00	Performance Coal hauling coal through hazy Creek causing muddy water in Marsh Fork	PERFORMANCE COAL COMPANY
U306966	12/8/2001 11:30:00	Panther Creek has a white deposit on the stream bottom.	GREEN VALLEY COAL COMPANY
U400297	1/15/2002 11:13:00	Citizen called to complain of water loss problems occurring for the last month.	RIVERSIDE ENERGY INC
U400567	7/24/2001 10:30:00	Mrs. Osborne stated she should only pump a fe gallon of water and the pump would shut off or slow down to a trickle. She thinks it is due to the mining of Eastern Energy which is located below her residence. Mrs. Osborne stated that they had for the past	EASTERN ENERGY CORP

U400587	1/11/2002 17:59:00	The citizen stated that Bradshaw Creek was black and it had a strange smell.	EASTERN ENERGY CORP
U400587	10/1/2001 09:00:00	Mr. Gross stated that his water had turned muddy or black on 9/23/01 and 10/1/01. He was wanting to know if mining activities from Baystar Coal Co's deep mine or exploration work could be causing problems with his well.	BAYSTAR COAL COMPANY, INC
U400591	11/27/2001 17:00:00	Truck Drivers destroying property, bus stop, etc. Child was in bus stop building when truck driver ran into it.	CARETTA MINING INC
U400595	10/25/2001 10:55:00	Mine crack behind house.	HERNDON PROCESSING COMPANY
U400595	1/4/2002 15:30:00	Complaintant states that he has notified a decrease in his water since October of 2001.	HERNDON PROCESSING COMPANY
U401194	7/21/2001 15:10:00	Sudden rush of water in Drews Creek suspects connection with mining upstream.	EASTERN ASSOCIATED COAL CORP.
U401196	10/10/2001 14:00:00	Well has gone dry and believes David Cline Rock N Roll Coal has sank her well. Well was drilled 80 feet deep in 1998 in and had plenty of water. Burnt up one pump and replaced it in July 2001. She began having trouble in November of 2000.	MYRTLE D CORP
U401196	12/27/2001 13:30:00	Would like to know if Myrtle D operator Rock N Roll Coal Company is mining close to their residence. They have felt rumbling and their house shakes at times. Is Rock N Roll planning to advance their mining into Bias Fork?	MYRTLE D CORP
U402185	12/21/2001 11:30:00	Citizen complained of feeling vibrations shaking his residence at various times recently.	RIVERSIDE ENERGY INC
U402199	7/18/2001 13:00:00	Mr. Stover alleges that his house was damaged from blasting that occurred during the construction of Guyandotte Pocahontas Inc., Permit # U-4021-99 deep mine site.	CREEKSIDE ENERGY DEVELOPMENT COMPANY
U402199	8/27/2001 08:00:00	Complaintant states that burning wood and debris earlier in the morning. The company was required by MSHA to remove wood and debris from stream channel to properly dispose of.	CREEKSIDE ENERGY DEVELOPMENT COMPANY
U402199	9/5/2001 16:16:00	Complaintant states that burning has been going on all week-end at Hotchkiss. Smoke is thick. Huge fire.	CREEKSIDE ENERGY DEVELOPMENT COMPANY
U402199	11/13/2001 09:00:00	Complaintant states that a local resident in the community is taking rocks, material, etc. from a nearby stream that has been dredged and bermed up along the banks due to recent flooding.	CREEKSIDE ENERGY DEVELOPMENT COMPANY
U402199	11/20/2001 14:20:00	The coal mine in Hotchkiss is covering the whole town with dust.	CREEKSIDE ENERGY DEVELOPMENT COMPANY
U402199	12/18/2001 12:30:00	Complaintant states that dust becomes mud when it rains in Hotchkiss.	CREEKSIDE ENERGY DEVELOPMENT COMPANY
U402559	8/2/2001 13:45:00	Road dusty - need to run water truck	BLACK WOLF MINING COMPANY
U402559	8/10/2001 15:00:00	Ten Day Notice from OSM. (1) The company has failed to effectively follow the approved fugitive dust control plan that protects off site areas. (2) The company failed to protect the hydrologic balance to offsite areas from sedimentation to streams below	BLACK WOLF MINING COMPANY
U402559	8/15/2001 13:00:00	County road dust at #7 and #6 intersection of Gary	BLACK WOLF MINING COMPANY
U402559	9/26/2001 11:10:00	County road very dusty.	BLACK WOLF MINING COMPANY
U402559	10/10/2001 14:01:00	Road in front of home is dusty and mud being tracked from Black Wolf Mine.	BLACK WOLF MINING COMPANY
U402559	10/29/2001 10:25:00	(1) Dust from coal trucks very bad, need truck wash #9 area. (2) Top mine has mud holes where blended road meets Rt 13. Need asphalt or concrete over holes. (3) curtain at Top Gun stockpile. Will not control coal dust with wind blowing.	BLACK WOLF MINING COMPANY
U402559	12/14/2001 10:10:00	Dust on county road.	BLACK WOLF MINING COMPANY
U402559	12/14/2001 14:40:00	Dust from coal trucks on county road.	BLACK WOLF MINING COMPANY
U402559	12/17/2001 11:00:00	Dirt on county road.	BLACK WOLF MINING COMPANY
U402559	1/14/2002 10:55:00	Mud and dirt on county road from coal trucks.	BLACK WOLF MINING COMPANY
U402559	1/15/2002 11:00:00	Dust from Black Wolf (Top gun) Mine. Curtain at stockpile to small and no water sprays on.	BLACK WOLF MINING COMPANY
U402559	2/4/2002 10:00:00	Need water truck to wash county road and trucks not washing wheels at Top Gun Mine.	BLACK WOLF MINING COMPANY
U500193	7/20/2001 19:52:01	Follow up to original complaint of discolored water coming from Little Marsh Fork. Initially investigated for permit # U-5003-93.	MARFORK COAL COMPANY, INC
U500894	8/30/2001 15:00:24	HOUSE IS GETTING DUSTY FROM COAL TRUCK TRAFFIC. SOME TRUCKS NOT TARPING. WOULD LIKE TO HAVE HOME PRESSURE WASHED.	HOBET MINING INC

22 of 27

U501199	12/19/2001 09:10:23	TRUCKS ARE TRACKING MUD ONTO THE HIGHWAY. TRUCKS ARE OVERLOADED AND DO NOT HAVE TARPS.	MIN INC
U501199	12/19/2001 09:11:05	TRUCKS ARE TRACKING MUD ONTO THE HIGHWAY	MIN INC
U501208	8/28/2001 13:36:41	DUST FROM COAL TRUCK TRAFFIC COATING VEHICLES, PORCHES AND WINDOWS. NO WATER TRUCK ON ROAD FOR HOURS ON 8-28-01 OR 8-27-01. FOLLOW UP - DUST FROM COAL TRUCK TRAFFIC COATING VEHICLES, PORCHES AND WINDOWS. NO WATER TRUCK ON ROAD FOR HOURS ON 8-28-01 OR 8	INDEPENDENCE COAL COMPANY, INC.
U501386	10/29/2001 10:00:24	WILLIAMS MTN ROAD - WV STATE RT 5 CRACKED BY LONGWALL SUBSIDENCE BY PULLING PANEL UNDER ROAD. ROAD IS IN VERY HAZARDOUS CONDITION. SCHOOL BUSES WITH CHILDREN ARE IN JEOPARDY.	EASTERN ASSOCIATED COAL CORP.
U501386	10/29/2001 15:00:04	WILLIAMS MT. ROAD IS CRACKED BY JUSTICE MINE SUBSIDENCE. VERY CONCERNED ABOUT SAFETY & USE OF ROAD. ALSO CONCERNED ABOUTH HIS MINERAL RIGHTS.	EASTERN ASSOCIATED COAL CORP.
U501386	11/1/2001 08:30:25	WV STATE RT 5 HAS SETTLED AGAIN AND CRACKS HAVE RE-OPENED MAKING ROAD HAZARDOUS TO PUBLIC. MR. STEWART VERY CONCERNED ABOUT SAFETY OF RESIDENTS & CHILDREN. MR STEWART REQUESTED COPIES OF PERMIT & OTHER RELATED DOCUMENTS.	EASTERN ASSOCIATED COAL CORP.
U501391	8/1/2001 14:35:24	Well is sunk. Mining by Mingo Logan Coal Company	MINGO LOGAN COAL COMPANY
U501391	9/25/2001 16:30:28	WELL IS DRY. COULD SOMEONE CHECK IT FOR HER.	MINGO LOGAN COAL COMPANY
U501391	12/10/2001 12:10:53	THE WELL HAS GONE COMPLETELY DRY. THERE IS JUST MUD IN IT NOW. HAS BEEN GOING DRY FOR ABOUT TWO MONTHS NOW. ALSO, THERE IS A MINE BREAK BEHIND THE HOUSE	MINGO LOGAN COAL COMPANY
U501398	8/12/2001 08:00:05	COMPLAINANT ALLEGES THAT HE IS PART OWNER OF PEARL THOMPSON WATER WELL. WELL WAS SUNK AND MS. THOMPSON COMPENSATED FOR LOSS. COMPLAINANT ALLEGES HE IS ALSO OWED COMPENSATION FOR LOSS. THIS WAS DISCUSSED IN DETAIL ON PHONE WITH MR. STEWART ON 8-16-01. IT W	INDEPENDENCE COAL COMPANY, INC.
U501398	12/14/2001 11:35:46	ANONYMOUS COMPLAINT FILED AS MSHA AT UNEEDA OF TRACKING AT ROBINSON CREEK. PHONED IN BY MSHA SUPERVISOR TERRY PRICE.	INDEPENDENCE COAL COMPANY, INC.
U501398	1/29/2002 11:00:50	SUBSIDENCE CRACKS ON RIDGE BETWEEN RUFFY'S BR. AND DOLAN'S FORK OF WHITE'S BR.	INDEPENDENCE COAL COMPANY, INC.
U501593	10/3/2001 08:10:25	WHITE SUBSTANCE IN CREEK AT STOLLINGS	RUM CREEK COAL SALES INC
U501995	6/11/2001 09:00:26	CITIZEN INITIALLY EXPERIENCED PROBLEM WITH WATER QUALITY IN FEB. OF THIS YEAR ACCORDING TO MRS. COLEGROVE. DELBARTON MINING PROVIDED WATER FILTER SYSTEM FOR THE RESIDENCE. ON SAT. 6-9-01, WELL WENT COMPLETELY DRY. CITIZEN CONTACTED DELBARTON AND COMPANY	DELBARTON MINING COMPANY
U501996	6/12/2001 10:00:57	NOT RECEIVING DRINKING WATER FROM DELBARTON SINCE TREATMENT TANKS INSTALLED. NOW RECEIVING DRINKING WATER. DELBARTON PROVIDED WELL TREATMENT. HAS CRACKING TO FOUNDATION OF PUMP HOUSE AND FRONT OF RESIDENCE. *CITIZEN HAS SEVERAL QUESTIOS ABOUT OPERATIONS !	DELBARTON MINING COMPANY
U501996	6/14/2001 11:53:54	EAST KY WATER CO. PUMPED MUDDY WATER OUT OF CREEK INTO HER POOL. ALSO YARD HAS NOT BEEN REPAIRED	DELBARTON MINING COMPANY
U501996	6/22/2001 21:45:00	WATER TANKS ARE EMPTY. CALLED EAST KY WATER CO. 3 TIMES TODAY TO BRING WATER, NO WATER DELIVERED.	DELBARTON MINING COMPANY
U501996	6/26/2001 10:50:08	WATER IN WELL IS MUDDY. LIVES LEFT HAND FORK OF DUNCAN FORK. CITIZEN HAS HAD SAMPLES TAKEN IN THE PAST. MR. VANCE STATED HE WON'T BELIEVE WHAT WE TELL HIM, BUT WANTS SAMPLE ON RECORD.: FOLLOW UP 12-18-01 BY JOHN FLESHER - THIS COMPLAINT WAS MADE BY ROLAND	DELBARTON MINING COMPANY
U501996	6/26/2001 10:50:44	WELL WATER WAS MUDDY AND NOW HAS WENT DRY. ROLAND VANCE SR. MADE THE INITIAL COMPLAINT FOR ROLAND VANCE JR.: FOLLOW UP 12-18-01 BY JOHN FLESHER - WELL WATER WAS MUDDY AND NOW HAS WENT DRY. ROLAND VANCE SR. MADE THE INITIAL COMPLAINT FOR ROLAND VANCE JR.	DELBARTON MINING COMPANY

23 of 27

U501996	6/26/2001 12:45:13	WATER GOT MUDDY ABOUT 4 WEEKS AGO, THEN CLEARED UP. WANTS WATER TESTED. CREEK WAS MUDDY YESTERDAY RIGHT FORK OF OOTEN FORK. WELL 29 FEET DEEP, GOOD WATER AS GOOD AS BOTTLED WATER, HAND DUG WELL. CREEK AFFECTED AT LEAST A YEAR. WELL AT LEAST 65 YEARS OLD	DELBARTON MINING COMPANY
U501996	6/27/2001 11:14:26	PROBLEM WITH WELL - TRIED TO CALL DEP ON SATURDAY - TURNED PUMP OFF FOR 45 MINUTES, THEN HAD WATER. WELL 280 FT. DEEP. LIVES LOWER SHEPPARTOWN RD., LEFT AND CROSS CREEK (BLOCK GARAGE)	DELBARTON MINING COMPANY
U501996	6/27/2001 11:30:26	COMPANY CUT A ROAD ON THE HILL, RIGHT FORK OF OOTEN FORK, PURE MUD THE LAST 2 TIMES IT RAINED.	DELBARTON MINING COMPANY
U501996	6/27/2001 11:48:58	WELL IS ALMOST DRY - VERY LITTLE WATER- WANTS DEP TO MAKE DETERMINATION - DID MINING IMPACT HER WELL? MS. DEMPSEY CALLED AGAIN 6-29-01 - WANTS AN ANSWER, HAS NICK SCHAER DECIDED? 11-27-01 WELL WATER QUALITY (RED COLOR AND BLACK PARTICLES) AND QUANTITY	DELBARTON MINING COMPANY
U501996	6/27/2001 14:00:49	WELL GOING DRY THE LAST 3 OR 4 WEEKS, WATER IS RED AND SMELLS BAD. WELL IS 80 - 90 FEET DEEP, DRILLED DEC. 1990. HAS WATER TREATMENT SYSTEM. LOWER SHEPPARTOWN ROAD.	DELBARTON MINING COMPANY
U501996	7/2/2001 12:20:05	BABY BREAKING OUT, WANTS WATER TESTED, DRIVERS NOT ADDING ANYTHING IN TANKS, NEW DRIVERS	DELBARTON MINING COMPANY
U501996	7/2/2001 13:30:55	2 TANKS IN RONNIE BLANKENSHIP'S YARD SERVE 4 HOMES, TANKS EMPTY SINCE NOON, CALLED MIKE SMITH AT 1315 HRS. NO WATER DELIVERED.	DELBARTON MINING COMPANY
U501996	7/3/2001 17:10:57	ALWAYS HAD GOOD WATER - LAST COUPLE OF WEEKS WATER HAS SLIGHT DISCOLORATION. WELL 96 FT. DEEP. ABOUT 15 YRS. OLD. ACROSS FOUR-LANE (119) FROM TIC TOC TIRE CO., BACK ON HILL 4 HOUSES IN	DELBARTON MINING COMPANY
U501996	7/10/2001 08:00:00	MR. ELKINS WANTED TO HAVE HIS WELL WATER CHECKED.	DELBARTON MINING COMPANY
U501996	7/13/2001 00:40:52	MR. HINKLE REPORTED HAVING WATER PROBLEMS, BUT NOT DRY. HAROLD WARD SPOKE WITH KRISSY ON 7-12 & 7-13 COMPLAINT IS CHANGE IN QUALITY NOT QUANTITY. 08/20/01 WANTS WATER RE-TESTED - IRON WAS 2.4 NOW 20. FOLLOW UP 12-6-01 BY JOHN FLESHER - QUALITY OF WEL	DELBARTON MINING COMPANY
U501996	7/13/2001 15:19:19	WANTS WATER TESTED, TEST BY EAST KY WATER FOUND BACTERIA. 2 HOUSES ACROSS CREEK FROM UPPER SHEPPARDTOWN RD.	DELBARTON MINING COMPANY
U501996	7/16/2001 09:04:32	WATER TANK ALMOST EMPTY - HAS NOT BEEN FILLED SINCE WED. 7-11-01. SAME TANK AS ANDREW AND JUDY TAYLOR.	DELBARTON MINING COMPANY
U501996	7/16/2001 09:23:51	NO WATER - HASN'T BEEN FILLED SINCE WED. 7-11-01. NO WATER SINCE 0500 THIS MORNING	DELBARTON MINING COMPANY
U501996	7/17/2001 11:00:41	RESIDENT STATED SPRING (DUG OUT) HAS BEEN LOSING RECHARGE; WANTS WATER TESTED. STATED SPRING HAS BEEN PROVIDING WATER SINCE HE WAS A CHILD. FOLLOW UP 12-20-01 BY JOHN FLESHER - SPRING HAS BEEN LOSING RECHARGE; WANTS WATER TESTED.	DELBARTON MINING COMPANY
U501996	7/18/2001 11:49:56	RESIDENT SAYS WATER HAS A BAD ODOR WHILE ALSO STAINING TOILET/BATHTUB SURFACES ORANGE. THERE ARE 2 TRAILERS ON THIS WELL (JAMES & MITZI GILLMAN) - SECOND PLACE ON RIGHT ABOVE BETTY GILLMAN BEFORE KARA LANE TURNOFF. FOLLOW UP 12-28-01 BY JOHN FLESHER - W	DELBARTON MINING COMPANY
U501996	7/20/2001 11:19:31	WANTS WATER CHECKED, BLACK PARTICLES & BAD ODOR IN WELL WATER. FOLLOW UP 12-19-01 BY JOHN FLESHER - WELL WATER HAS A BAD ODOR AND BLACK PARTICLES.	DELBARTON MINING COMPANY
U501996	7/23/2001 13:43:34	RESIDENT SAYS WATER HAS GASSY TASTE. GARY HATFIELD TOLD HER TO CALL DEP.	DELBARTON MINING COMPANY
U501996	7/24/2001 10:25:35	WATER HAD SULFUR SMELL - NOW HAS BLACK PARTICLES- NOT STAYING AT HOME. WATER NOT USED MUCH. WELL DRILLER SAID TO ADD BLEACH TO KILL E.COLI. WELL DRILLED 90 FT DEEP IN 1994. DAY STAR RD. BRICK HOUSE - 4TH UP FROM RT 65 EXIT.	DELBARTON MINING COMPANY
U501996	7/25/2001 09:24:05	WATER GOT REAL RED LAST NIGHT - NO FILTER, WELL DRILLED 300 FT. DEEP IN 1999. NO ANSWER 7-25-01, 0910. KARA LANE BESIDE DANNY & JENNIFER DEMPSEY. FOLLOW UP - 12-19-01 BY JOHN FLESHER - WELL WATER TURNED RED; DRILLED WELL IN 1999 200 FEET DEEP	DELBARTON MINING COMPANY

U501996	7/26/2001 09:44:14	water has bad odor - sewage smell. have always bought drinking water.	DELBARTON MINING COMPANY
U501996	7/26/2001 10:09:21	WATER HAS AN ODOR SINCE APRIL OR MAY, HEALTH DEPT SAYS NOT SUITABLE FOR DRINKING. EARLY MORNING BEST TIME TO CONTACT RESIDENT. LEFT HAND FORK OF DUNCAN FORK- CLAY SIDING- GREEN SHUTTERS- BESIDE BILL DEMPSEY. 11-26-01 WELL WATER QUALITY (ODOR AND PARTIC	DELBARTON MINING COMPANY
U501996	7/26/2001 11:00:10	RESIDENT SAYS WATER HAS VERY BAD ODOR; MOTHER SAID CHILDREN GET SICK TO THEIR STOMACH WHEN DRINKING WATER. FOLLOW UP 12-19-2001 BY JOHN FLESHER - WELL WATER HAS A BAD ODOR; GOT SICK WHEN DRANK IT.	DELBARTON MINING COMPANY
U501996	7/26/2001 11:33:37	WELL +/- 18 YRS. OLD, WHEN DRILLED WELL PRODUCED 18-20 GPM; DALLAS RUNYON SAMPLED WELL 3-4 YRS. AGO. CITIZEN NOTED ONLY MINOR PROBLEM BUT WANTED AGENCY TO KNOW ASAP. 1/2 MILE NORTH OF BELO ACROSS FROM DAY STARR ROAD. WATER NOT RECHARGING THE SAME - SEE	DELBARTON MINING COMPANY
U501996	7/30/2001 11:38:06	RESIDENT SAYS WATER PRESSURE IS LOW; WELL NOT RECHARGING THE SAME WHEN USING A LOT OF WATER. ACROSS FROM DAY STAR ROAD ON HILL	DELBARTON MINING COMPANY
U501996	7/31/2001 16:05:23	BOUGHT HOUSE IN RIFFE BR. - MAY NEED PRE-SUBSIDENCE SURVEY - PRIOR OWNER SLOAN, CHRISTOPHER - WANTS SURVEY RE-DONE DUE TO REMODELING.	DELBARTON MINING COMPANY
U501996	7/31/2001 16:45:48	WELL GOING BAD, LOW PRESSURE AT TWO RENTAL TRAILERS ABOVE BETTY GILMAN. DRILLED 15-20- YEARS AGO. FOLLOW UP - 12-19-01 BY JOHN FLESHER - WELL WATER QUANTITY AND QUALITY (BLACK) AFFECTED BY MINING.	DELBARTON MINING COMPANY
U501996	8/3/2001 13:50:57	RESIDENT IS CONCERNED ABOUT ODOR IN WATER. ALSO HAS DISCOLORATION (ORANGE) TO WATER. REQUESTED WATER SAMPLE. FOLLOW UP - 12-28-01 BY JOHN FLESHER - WELL WATER HAS AN ODOR AND ORANGE COLOR.	DELBARTON MINING COMPANY
U501996	8/13/2001 09:15:50	WANTS WATER TESTED. WELL PROBLEM MAY BE JUST BEGINNING.	DELBARTON MINING COMPANY
U501996	8/13/2001 11:18:17	WELL WATER IS BAD - CAN'T DRINK IT - WANT WATER TESTED. USE SAME WELL AS KENNETH WHITED. 11/07/01 WELL WATER IS BAD AND HAS GOTTEN WORSE.	DELBARTON MINING COMPANY
U501996	8/13/2001 12:40:17	CAN'T DRINK THEIR WELL WATER - SAME WELL USED BY BILLY & BETTY RUNYON - WELL DRILLED BY ISLAND CREEK COAL COMPANY FOR BATHHOUSE FOR OLD 27 MINE. 11/07/01 MRS. BETTY RUNYON WHO SHARES THE WELL WITH MR. WHITED CALLED ON 11-5-01 SAYING THE WATER HAD GOTTEN	DELBARTON MINING COMPANY
U501996	8/16/2001 10:48:31	WATER IS DISAPPEARING FROM HIS WATER WELL. TAKES 10 MINUTES TO RECHARGE. IS 27 HOLLOW POOL LEVEL BEING DE-WATERED?	DELBARTON MINING COMPANY
U501996	8/20/2001 08:57:45	WATER GETTING LOW; NOT ENOUGH TO BACKWASH FILTERS	DELBARTON MINING COMPANY
U501996	8/22/2001 13:55:11	WATER HAS BAD SULPHUR SMELL - DRILLED 8 OR 9 YEARS AGO - PROBLEM IN LAST 1 OR 2 MONTHS. LIVES IN RIFFE BR. ABOVE CHURCH ON LEFT.	DELBARTON MINING COMPANY
U501996	8/28/2001 13:15:06	WATER STOPPED PUMPING IN HIS WELL - WANTS TO KNOW HOW TO GET DELBARTON MINING TO PROVIDE WATER. LIVES APPROX. 1 TO 1 1/2 MILES FROM RT. 119 ON RT. 65 TOWARD DELBARTON.	DELBARTON MINING COMPANY
U501996	9/5/2001 14:00:34	BLACK PARTICLES IN THE WATER IN BACK OF COMMODE; AUTOMATIC WASHER TEARS UP FROM BLACK WATER; GARY HATFIELD TOLD HER TO CALL DEP. PAULINE ETTERS OWNS WELL, 2 TRAILERS ON ONE WELL. RT 65 AT CANEY CHURCH OF CHRIST, 5TH DRIVEWAY TOWARD DELBARTON. 3 TRAILERS	DELBARTON MINING COMPANY
U501996	9/5/2001 18:00:55	RESIDENT WANTS WATER CHECKED. LOWER SHEPPARDTOWN EXIT - (KENNETH HALL, FATHER)	DELBARTON MINING COMPANY
U501996	9/10/2001 19:00:51	SOMETHING SHOOK SEVERAL HOMES IN OOTEN FORK 7:58 P.M. ON 9-8-01. SHOOK PICTURES OFF THE WALL AND CAUSED CRACKS IN THE WALL. MAY BE THE RUBY MINE HAD A ROOF FALL. 10/30/01 CRACKS IN WALL & CONCRETE PORCH. 11/07/01 MRS. RATLIFF MENTIONED SOME OF HER P	DELBARTON MINING COMPANY
U501996	9/11/2001 06:35:03	MAY BE A BLAST OR ROOF FALL SHOOK CEILING FANS AND COMPUTER APPROX. 8:00 P.M. 9-8-01.	DELBARTON MINING COMPANY

U501995	9/14/2001 14:00:45	CAN'T USE WELL WATER, LAST USED IN DEC. OR JAN., INFREQUENTLY COMES HOME TO WV. BAD SMELL; CAN'T COOK WITH THIS WATER. UPPER END OF KARA LANE; OWNS SEVERAL ACRES COULD SELL LOTS BUT NOW GROUNDWATER IS DESTROYED; CAN CONTACT ROBERT SHELTON RE. SAMPLING 47	DELBARTON MINING COMPANY
U501996	9/14/2001 14:20:46	HAS HEARD THAT COMPANY IS PUMPIING OUT THE 27 MINE SOMEWHERE IN THE SCARLET AREA.	DELBARTON MINING COMPANY
U501996	9/18/2001 15:20:03	MR. GOTEN HAS CEILING TILES COMING LOOSE AND SOME HAVE FALLEN IN THE BACK OF THE HOUSE AND HAD SOME WATER LINE DAMAGE HE REPAIRED. SUSPECTED CAUSE, SUBSIDENCE AND A BLAST ON 9-15-01.	DELBARTON MINING COMPANY
U501996	8/19/2001 11:50:54	water has changed - has an oily film. Owen Hatfield is well owner - right at mouth of duncan fork - 3rd house down	DELBARTON MINING COMPANY
U501996	8/21/2001 10:13:03	QUANTITY OF WELL WATER IS DECREASING. LEACH BED STOPS UP NOW AND IT DIDN'T USED TO. RESIDENT SAID MR. DOTSON WANTED TO LET SOMEONE TAKE A WATER SAMPLE BUT NOT SURE WHO HE WAS TALKING ABOUT. 1ST HOUSE ON LEFT UP HILL IN RIFFE BR.	DELBARTON MINING COMPANY
U501996	8/21/2001 10:13:57	WATER WELL REPLACEMENT. MRS. BISHOP CALLED 10-4-01 RE. NOT HEARING FROM DELBARTON MINING 10-30-01 QUANTITY AND QUALITY OF WELL WATER DECREASING. LEACH BED NOT FUNCTIONING PROPERLY.	DELBARTON MINING COMPANY
U501996	8/26/2001 13:00:11	FILM ON WATER IN COMMODE & SHOWER. COAL COMPANY SAMPLED IN 1999. DRILLED 105 FT. DEEP; SAME WELL FOR 20 YRS. OR MORE; SAME EXIT OFF RT 119 AS PAT DAVIS	DELBARTON MINING COMPANY
U501996	10/3/2001 09:00:10	CHANGE IN WATER QUALITY/QUANTITY. PARTICLES IN WATER AND VERY ODD SMELL. 10-31-01 QUANTITY AND QUALITY OF WELL WATER HAS DIMINISHED, PARTICLES IN WATER AND HAS A SMELL.	DELBARTON MINING COMPANY
U501996	10/9/2001 09:26:48	WELL WATER QUALITY AND QUANTITY	DELBARTON MINING COMPANY
U501996	10/10/2001 11:00:18	NO PROBLEMS WITH WELL; NO QUALITY OR QUANTITY WITH WELL WATER RIGHT NOW. LIVES ACROSS ROAD FROM OLD SCHOOL HOUSE.	DELBARTON MINING COMPANY
U501996	10/16/2001 15:20:44	MR. MCDONALD EXPRESSED THAT HIS WATER LOSS MIGHT BE ADDRESSED SINCE HIS PREVIOUS SUPPLY WAS FROM WELL HE SHARED WITH HIS FATHER, WAYNE MCDONALD SR. CITIZEN ALSO HAD NUMEROUS QUESTIONS AND CONCERNS ABOUT WATER REPLACEMENT POLICY AND OTHER PHYSICAL AND ECON	DELBARTON MINING COMPANY
U501996	10/17/2001 12:10:12	WATER QUALITY GETTING WORSE; RED AND HAS ODOR	DELBARTON MINING COMPANY
U501996	10/17/2001 15:03:17	LIVES ON GILLMAN DRIVE. HAD TWO WELLS THAT ARE NOW DRY. OWNS STORE ON GILLMAN DRIVE AND LEASES IT. LIVES IN HOUSE ON UPPER SIDE OF STORE. HAD BEEN HOOKED UP ON SISTER'S WELL WHO DOES NOT LIVE THERE.	DELBARTON MINING COMPANY
U501996	10/19/2001 09:45:20	THIS IS TO CORRECT A MISTAKE ON THE MR-35 DATED 7-26-01 AT 10:00 AND AN INVESTIGATION DATE OF 12-11-01. ON THE MR-35 ATTACHMENT I STATED THAT THE NEAREST MINING WAS 1800 FEET EAST OF THE DAVIS HOME WHEN IT SHOULD HAVE SAID 1800 FEET WEST.	DELBARTON MINING COMPANY
U501996	10/22/2001 09:05:27	HAS CRACKS IN CINDERBLOCKS AND DOORS ARE OFFSET. HAD STRONG VIBRATIONS ON 10-8-01 AND BELIEVES ROCKFALL FROM PILLARING SECTION WAS CAUSE.	DELBARTON MINING COMPANY
U501996	10/23/2001 11:21:01	HAS BLACK PARTICLES IN WELL AND THINKS IT MIGHT BE CAUSED BY MINING. 11/26/01 HAS BLACK PARTICLES IN WELL AND THINKS IT MIGHT BE CAUSED BY MINING.	DELBARTON MINING COMPANY
U501996	10/26/2001 10:00:02	RESIDENT COMPLAINED OF SUBSIDENCE CRACKS ON SIDEWALK AND CHIMNEY FLUME. MR DEBOARD TOLD ME THAT SIDEWALK HAS BEEN THERE APPROXIMATELY 30 YEARS AND NEVER CRACKED. HE ALSO STATED HE BUILT CHIMNEY ABOUT 15 YEARS AGO AND NEVER HAD ANY PROBLEMS WITH FLUME. 11	DELBARTON MINING COMPANY
U501996	10/30/2001 09:54:39	CHLORINE IN THE CITY WATER IS BURNING HER SKIN AND EATING HOLES IN THE CLOTHES.	DELBARTON MINING COMPANY
U501996	10/31/2001 09:30:54	WELL WATER IS BAD, HAS GOTTEN WORSE AND WOULD LIKE IT TESTED.	DELBARTON MINING COMPANY

U501996	10/31/2001 10:00:37	RESIDENT COMPLAINED WATER HAS A FOUL SMELL AND TASTE, BLACK PARTICLES CAN ALSO BE SEEN ACCORDING TO RESIDENT. FOLLOW UP 12-28-01 BY JOHN FLESHER - WELL WATER HAS A BAD ODOR AND BLACK PARTICLES. COMPLAINT PHONED IN BY NEIGHBOR JANNIE DEMPSEY. MRS. DEM	DELBARTON MINING COMPANY
U501996	10/31/2001 10:00:30	RESIDENT COMPLAINED WATER HAS A FOUL SEMLL AND TASTE, BLACK PARTICLES CAN ALSO BE SEEN ACCORDING TO RESIDENT. FOLLOW UP 12-28-01 BY JOHN FLESHER - WELL WATER HAS A BAD ODOR AND BLACK PARTICLES. COMPLAINT PHONED IN BY NEIGHBOR JANNIE DEMPSEY	DELBARTON MINING COMPANY
U501996	11/2/2001 14:30:23	INTERIOR TRIM COMING LOOSE, LAMINATED FLOOR BUCKLING, FOUNDATION CRACKED IN FRONT OF HOUSE (CINDERBLOCK) NOTICED ABOUT A WEEK AGO. MAY BE CAUSED BY HARD SHAKING 9-8-01 AT 8:00 P.M. 10-30-01 DAMAGE TO HOUSE; POSSIBLE CAUSE ROCK FALLS CAUSING HARD SHAKING	DELBARTON MINING COMPANY
U501996	11/2/2001 15:16:20	MINING HAS TURNED WELL WATER RED.	DELBARTON MINING COMPANY
U501996	11/5/2001 12:49:01	WELL WATER QUALITY AND QUANTITY	DELBARTON MINING COMPANY
U501996	11/7/2001 12:35:50	WELL HAS WENT DRY, 2-3 WEEKS AGO. NEVER WENT DRY BEFORE - HAS A WELL ON VACANT PROPERTY ACROSS THE ROAD AND WOULD LIKE IT CHECKED.	DELBARTON MINING COMPANY
U501996	11/16/2001 12:39:02	WELL WATER QUALITY HAD A BAD ODOR AND BLACK PARTICLES.	DELBARTON MINING COMPANY
U501996	11/26/2001 08:30:27	WELL WATER QUALITY AND QUANTITY	DELBARTON MINING COMPANY
U501996	11/30/2001 11:07:26	WELL WATER QUALITY AND QUANTITY	DELBARTON MINING COMPANY
U501996	12/10/2001 08:00:31	THIS IS TO CORRECT A MISTAKE ON THE MR-35 WITH A DATE OF 7-13-01 @ 8:40 AND AN INVESTIGATION DATE OF 12-6-01. ON THE MR-35 ATTACHMENT I STATED THAT MINING WAS APPROXIMATELY 3000 FEET EAST OF THE HINKLE HOME WHEN IT SHOULD HAVE SAID 3600 FEET WEST.	DELBARTON MINING COMPANY
U501996	12/19/2001 08:30:44	THIS IS TO CORRECT A MISTAKE ON THE MR-35 WITH A DATE OF 8-26-01 AT 10:50 AND AN INVESTIGATION DATE OF 12-18-01. ON THE MR-35 ATTACHMENT I STATED THAT MINING WAS APPROXIMATELY 2800 FET EAST OF THE VANCE HOME WHEN IT SHOULD HAVE SAID 2600 FEET WEST.	DELBARTON MINING COMPANY
U501996	12/21/2001 13:30:36	WELL WENT DRY ON 12-13-01. THERE ARE TWO TRAILERS ON ONE WELL; OTHER IS LISA KISER.	DELBARTON MINING COMPANY
U502298	6/25/2001 16:00:00	FORK CREEK MINING CO. USE TO COME MONTHLY TO SAMPLE HIS WELL. COMPANY HAS NOT SAMPLED FOR LAST TWO MONTHS.	FORK CREEK MINING COMPANY
U505391	1/30/2002 10:09:38	SUBSIDENCE CRACKS ON NATURAL GROUND SURFACE ABOVE PINE RIDGE COAL TO DEEP MINE #16.	PINE RIDGE COAL CO
U506057	8/14/2001 14:27:43	Complainant alleges he observed coal slurry in Gilbert Creek	HAMPDEN COAL CO INC

Recommendations for Pre-Mine Assessment of Selenium Hazards Associated With Coal Mining in West Virginia

prepared by

A. Dennis Lemly, Ph.D.
Senior Scientist in Aquatic Toxicology

January 5, 2004

Background on Selenium

Selenium gained recognition among research scientists, regulatory authorities, and fisheries managers in the late 1970's when the landmark pollution episode took place at Belews Lake, North Carolina. Selenium released in the waste from a coal-fired power plant entered the lake, killed the fish community, and caused residual impacts for many years after selenium inputs were stopped (Cumbie and Van Horn 1978; Lemly 1985a, 1997a, 2002a). The primary lessons learned from Belews Lake were: (1) Even small increases in waterborne selenium can lead to devastating effects on aquatic life, and (2) Once selenium bioaccumulation in the aquatic food chain begins it is too late to intervene — pre-pollution assessment and management are key to preventing impacts. The lessons from Belews Lake were instrumental in the development of USEPA's current national freshwater criterion for selenium (5 µg/L [micrograms per liter]). Since the Belews Lake episode, a tremendous amount of research on the toxicology, environmental cycling, and hazard assessment of selenium has taken place (e.g., Frankenberger and Engberg 1998, Lemly 2002b). In addition to learning about its toxic potential, much information has been gained on the sources of selenium and how it reaches the aquatic environment, particularly with respect to coal mining and the coal industry (Lemly 1985b, 2004, Dreher and Finkelman 1992, Vance et al. 1998).

Need for Pre-Mine Assessment

The lessons from Belews Lake, supported by over two decades of research findings from many other locations throughout North America (Lemly 1997b, 1999, 2002b; Skorupa 1998a, Hamilton 2004), underscores the need to take a preventive approach to selenium pollution rather than attempting to deal with it after contamination has taken place. With respect to coal mining this means pre-mine assessment. Failure to adopt this approach can only worsen the selenium pollution and associated ecological risks that have emerged in West Virginia. Selenium-related violations of the federal Clean Water Act need not occur if careful pre-mine assessment is used to guide mine permit decisions. Clearly, much attention is focused on management and regulatory authorities in the state, and it is imperative that environmentally sound actions be taken in order to stem the escalating threat of widespread selenium pollution. Using pre-mine evaluation can safeguard natural resources by allowing site-specific risk assessment and risk management to take place. This is the prudent, environmentally responsible course of action.

Adopting this approach will benefit the state and the mining industry by demonstrating that all activities are being developed and implemented with the goal of preventing selenium pollution, thereby minimizing water quality issues that may lead to litigation by federal agencies and conservation groups.

Recommended Procedure

Geological assessment is the first step to understanding the environmental risk of selenium at prospective coal mines. It is essential to determine selenium concentrations of coal and overburden that are to be moved because once these materials are exposed to air and precipitation they can leach substantial quantities of selenium (e.g., Davis and Boegly 1981, Heaton et al. 1982), which begins the mobilization process and threat to aquatic life. Because selenium concentrations vary widely in coal and waste rock at a mine site (e.g., Heaton and Wagner 1983, Desborough et al. 1999), a thorough representation of the geographic area and depth of disturbance must be made. This entails making a minimum of one core drilling per 5 acres, extending into the coal bed that is to be extracted. Two samples (about 450 grams each) are taken from each core: one consisting of overburden material and one of the coal itself. Each sample is evaluated using a passive leaching test (see Heaton et al. 1982, Desborough et al. 1999). The first step is to crush the coarse sample with a hammer to produce approximately pea-size or smaller material. The resultant material is mixed and some is put into a beaker with deionized water (pH 5.0-6.0) in a ratio of 1 part sample to 20 parts water (use 5-20 grams of sample and 100-400 milliliters of water). Let stand for 48 hours, decant and filter (0.45 micrometer mesh) the liquid, acidify it to pH <2.0, and analyze the liquid for selenium concentration using a method with a detection limit <1 µg/L (part-per-billion). The results of these tests will generate a spatial profile of selenium mobility at the prospective mine site and allow a screening-level evaluation of hazards to aquatic life that an be used to guide subsequent assessment and regulatory decisions.

Evaluating Selenium Concentrations

The traditional approach to evaluate waterborne selenium concentrations is to compare them to the USEPA national freshwater criterion (5 µg/L). Concentrations exceeding the criterion should be viewed as posing unacceptable risk to aquatic life because of the likelihood

of bioaccumulation in the food chain. However, there is a growing body of scientific information which indicates that toxic impacts to aquatic life can occur when selenium levels reach 2 µg/L, particularly if the selenium is predominantly in the selenite form (which is the case for coal mine selenium), and the contaminated water enters a wetland, pond, reservoir, or other impoundment (Frankenberger and Engberg 1998, Skorupa 1998a, Hamilton and Lemly 1999, Lemly 2002b). Because of these findings, a value of 2 µg /L has been recommended by several selenium experts as the concentration limit necessary to protect fish and wildlife (Peterson and Nebeker 1992, Maier and Knight 1994, Skorupa 1998b, Hamilton and Lemly 1999, Lemly 2002b, Hamilton 2004), and USEPA has begun a review/revision process for their national freshwater criterion (USEPA 1998, Hamilton 2003). Moreover, based on broad experience dealing with a variety of selenium contamination issues, including coal mining wastes, the U.S. Fish and Wildlife Service and a number of state water quality agencies have adopted a value of 2 µg/L as their management or regulatory standard (see Engberg et al. 1998, Skorupa 1998b, Hamilton and Lemly 1999). I recommend that 2 µg /L be adopted as the maximum acceptable concentration of selenium in wastewater, drainage, and leachate associated with coal mining activities in West Virginia.

Comprehensive Assessment

By examining the results of the leach tests and applying a 2 µg Se/L water quality objective, field sites whose disturbance by mining would pose a hazard to aquatic life can be quickly identified. If clear dangers are evident — i.e., leachate selenium concentrations exceed 2 µg/L — then it is desirable to examine the operational characteristics of the proposed mine in the context of a 5-step comprehensive assessment that includes provisions for altering mine operations, establishing TMDLs for discharges and, in one scenario, not permitting the proposed mine to be developed at all (see page 5). This approach will allow site-specific hazard evaluation based on local hydrology and biological conditions, and provide a precise fine-tuning of the screening-level assessment generated by the leach tests. The methods used for hydrological, biological, and hazard assessment are techniques that have been field tested and published in the peer-reviewed literature (Lemly 2002b). Technical guidance is available for those unfamiliar with specific components of the procedure (email contact: dlemly@vt.edu).

Comprehensive assessment will provide the information necessary for policy makers to reach environmentally sound, scientifically defensible decisions on mine permit applications.

PRE-MINE ASSESSMENT OF SELENIUM HAZARDS

1. GEOLOGICAL ASSESSMENT
∇
Selenium content of coal and overburden
∇
Leachate test
∇
Selenium mobility characterization
∇
2. MINE OPERATION ASSESSMENT
∇
Waste disposal methods
∇
Waste volume projection
∇
Daily selenium load projection
∇
3. HYDROLOGICAL ASSESSMENT
∇
Delineate and characterize Hydrological Unit (HU)
∇
Estimate selenium retention capacity of HU
∇
Projected selenium concentrations
∇
4. BIOLOGICAL ASSESSMENT
∇
Aquatic life present in HU
∇
Sensitivity to selenium
∇
Priority species
∇
5. HAZARD ASSESSMENT
∇
Determine hazard level of projected selenium concentrations

∇	∇
High, moderate, or low hazard	Minimal or no hazard
∇	∇
Determine allowable selenium load (TMDL)	Mining is permissible
∇	
Identify mine operations needed to meet load	
∇	
Evaluate feasibility of mine in meeting environmental goals	

∇	∇
Environmental goals met	Goals not met
∇	∇
Mining is permissible	Mining is not permissible

References

Cumbie, P.M., and S.L. Van Horn. 1978. Selenium accumulation associated with fish mortality and reproductive failure. *Proceedings of the Annual Conference of the Southeastern Association of Fish and Wildlife Agencies* 32: 612-624.

Davis, E.C., and W.J. Boegly, Jr. 1981. Coal pile leachate quality. *Journal of the Environmental Engineering Division, Proceedings of the American Society of Civil Engineers* 107: 399-417.

Desborough, G., E. DeWitt, J. Jones, A. Meier, and G. Meeker. 1999. *Preliminary Mineralogical and Chemical Studies Related to the Potential Mobility of Selenium and Associated Elements in Phosphoria Formation Strata, Southeastern Idaho.* U.S. Geological Survey Open File Report 99-129. USGS, Denver, CO.

Dreher, G.B., and R.B. Finkelman. 1992. Selenium mobilization in a surface coal mine, Powder River Basin, Wyoming, U.S.A. *Environmental Geology and Water Science* 19: 155-167.

Engberg, R.A., D.W. Wescot, M. Delamore, and D.D. Holz. 1998. Federal and state perspectives on regulation and remediation of irrigation-induced selenium problems. Chapter 1 (pages 1-25) in W.T. Frankenberger, Jr., and R.A. Engberg, editors. *Environmental Chemistry of Selenium.* Marcel Dekker, Inc., New York, NY.

Frankenberger, W.T., Jr., and R.A. Engberg. 1998. *Environmental Chemistry of Selenium.* Marcel Dekker, Inc., New York, NY.

Hamilton, S.J., and A.D. Lemly. 1999. Water-sediment controversy in setting environmental standards for selenium. *Ecotoxicology and Environmental Safety* 44: 227-235.

Hamilton, S.J. 2003. Review of residue-based selenium toxicity thresholds for freshwater fish. [illegible]

Hamilton, S.J. 2004. Selenium toxicity in the aquatic food chain. *Science of the Total Environment* (in press).

Heaton, R.C., J.M. Williams, J.P Bertino, L.E. Wangen, A.M. Nyitray, M.M. Jones, P.L. Wanek, and P. Wagner. 1982. *Leaching Behaviors of High-Sulfur Coal Wastes From Two*

Appalachian Coal Preparation Plants. Technical Report LA-9356-MS. Los Alamos National Laboratory, Los Alamos, NM.

Heaton, R.C., and P. Wagner. 1983. *Trace Element Characterization of Coal Preparation Wastes*. Technical Report LA-9626. Los Alamos National Laboratory, Los Alamos, NM.

Lemly, A.D. 1985a. Toxicology of selenium in a freshwater reservoir: Implications for environmental hazard evaluation and safety. *Ecotoxicology and Environmental Safety* 10: 314-338.

Lemly, A.D. 1985b. Ecological basis for regulating aquatic emissions from the power industry: The case with selenium. *Regulatory Toxicology and Pharmacology* 5: 465-486.

Lemly, A.D. 1997a. Ecosystem recovery following selenium contamination in a freshwater reservoir. *Ecotoxicology and Environmental Safety* 36: 275-281.

Lemly, A.D. 1997b. Environmental implications of excessive selenium. *Biomedical and Environmental Sciences* 10: 415-435.

Lemly, A.D. 1999. Selenium impacts on fish: An insidious time bomb. *Human and Ecological Risk Assessment* 5: 1139-1151.

Lemly, A.D. 2002a. Symptoms and implications of selenium toxicity in fish: The Belews Lake case example. *Aquatic Toxicology* 57: 39-49.

Lemly, A.D. 2002b. *Selenium Assessment in Aquatic Ecosystems: A Guide for Hazard Evaluation and Water Quality Criteria*. Springer-Verlag Publishers, New York, NY.

Lemly, A.D. 2004. Aquatic selenium pollution is a global environmental safety issue. *Ecotoxicology and Environmental Safety* (in press).

Maier, K.J., and A.W. Knight. 1994. Ecotoxicology of selenium in freshwater systems. *Reviews in Environmental Contamination and Toxicology* 134: 31-48.

Peterson, J.A., and A.V. Nebeker. 1992. Estimation of waterborne selenium concentrations that are toxicity thresholds for wildlife. *Archives of Environmental Contamination and Toxicology* 23: 154-162.

Skorupa, J.P. 1998a. Selenium poisoning of fish and wildlife in nature: Lessons from twelve real-world examples. Chapter 18 (pages 315-354) in W.T. Frankenberger, Jr., and R.A. Engberg, editors. *Environmental Chemistry of Selenium*. Marcel Dekker, Inc., New York, NY.

Skorupa, J.P. 1998b. Selenium. Pages 139-184 in P.L. Martin and D.E. Larsen, editors. *Guidelines for interpretation of the Biological Effects of Selected Constituents in Biota, Water, and Sediment*. National Irrigation Water Quality Program Information Report No. 3. U.S. Department of the Interior, Denver, CO.

Vance, G.F., R.B. See, and K.J. Reddy. 1998. Selenite sorption by coal mine backfill material in the presence of organic solutes. Chapter 15 (pages 259-280) in W.T. Frankenberger, Jr., and R.A. Engberg, editors. *Environmental Chemistry of Selenium*. Marcel Dekker, Inc., New York, NY.

USEPA (US Environmental Protection Agency). 1998. *Report on the Peer Consultation Workshop on Selenium Aquatic Toxicity and Bioaccumulation*. Publication EPA-822-R-98-007. USEPA, Washington, DC.

Carol Stoddard, The Garden Club of America

---- Forwarded by David Rider/R3/USEPA/US on 01/23/2004 09:42 AM ----

Carol Stoddard <stodnoel@sbcglobal.net> 01/20/2004 04:53 PM

To: R3 Mountaintop@EPA
cc:
Subject: Comments on Mountaintop Mining

The Garden Club of <?xml:namespace prefix = st1 ns = "urn:schemas-microsoft-com:officesmarttags" />America
14 East 60th Street
New York, NY 10022
<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

The members of the Conservation and National Affairs Committees of The Garden Club of America write to express their disappointment at the draft Environmental Impact Statement concerning the effects of mountaintop mining.

Our committees visited West Virginia five years ago and witnessed at close range the effects of mountaintop mining – we know that it has caused destruction or degradation of over seven hundred miles of streams, a clear violation of the Clean Water Act. And the destruction continues.

Instead of calling a halt to this devastating practice, the current administration worsens it, by eliminating a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams, unless it can be proven that these streams will not be harmed.

We implore you to investigate some alternatives to this continued destruction. Please do what you can to protect the natural resources in Appalachia, especially by restricting loss both of forest and streams. 1-10

The Garden Club of America, founded in 1930, is comprised of 195 clubs in 40 states, and has approximately 17,000 members. Among our purposes, is "To restore, improve and protect the quality of the environment through programs of conservation, civic improvement and education.

Sincerely yours,
Carol S. Stoddard
Marian W. Hill
Chairman
Chairman
National Affairs & Legislation Committee
Conservation Committee

January 16, 2004

Jean Sullivan, Redbud Family Health Center

REDBUD FAMILY HEALTH CENTER

P.O. BOX 850, HYDEN, KENTUCKY 41749
PHONE (606) 672-3846
FAX (606) 672-6750

JEAN E. SULLIVAN, M.D.
SR. MARY JOAN GRIPSHOVER, CFNP
SR. KATHARINE A. DONOHOE, CFNP

August 8, 2003

REC'D AUG 18 2003

Mr. John Forren
USEPA - (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Mr. Forren:

We are writing on behalf of our beautiful mountians with their unparalleled hardwood forests. We would also like to protect our streams from the horrid mountain top removal which has been desecrating our area by filling in valleys with gravel. Not only that, but we will soon be a sterile gravel bed, with no uplifting scenery, great loss of plants and no decent homes for birds and animals.

We don't need any more of these grassy tops. We have too many which have not found any wothwhile use. It is most frightening to fly over the Appalachians now and see gravel pit after gravel pit. There is no reason coal mining cannot be conducted without protecting our stream beds and it soon will be all over, as seams are exhausted. We will have no attractions left for tourists here when the mountain sides has been completely scraped off. Also, mining interferes with our residents yards, gardens, homes, water supplies and graveyards in a serious way. 1-9

Please help us!

Sincerely,
Jean Sullivan
Sr. M. Joan Gripshover
Della Adams

Jean Sullivan, M.D.
Sr. M. Joan Gripshover
Sr. Katharine Donohue
Della Adams
Betty Baker
Donna Fields

js/df

Betty Baker
Donna Fields
Sr. Katharine Donohue

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:30 AM -----

Mwtidwell@aol.com
To: R3 Mountaintop@EPA
01/06/2004 06:05 PM cc:
Subject: DEIS for mountaintop mining is completely flawed/comments enclosed

(Embedded image moved to file: pic13985.jpg)
January 6th, 2004

Mike Tidwell
Director
Chesapeake Climate Action Network
P.O. Box 11138
Takoma Park, Md. 20912

John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am writing on behalf of CCAN's 5,000 Maryland supporters to urge a re-write of the mountaintop mining DEIS because of major defects in the DEIS. I urge the immediate termination of the issuance of new mountaintop mining permits until an EIS is completed and adopted, as required by NEPA. 4-2

The EIS process has been usurped and its scientific underpinnings destroyed by Interior Deputy Secretary Griles order to remove all environmental alternatives from the DEIS. There is no other federally permitted land use occurring in the U.S. with such devastating consequences as the massive and permanent impacts from the projected loss of over 380,000 acres of high-quality forest to mountain top removal and valley fill coal mining in Tennessee, West Virginia, Virginia, and Kentucky. This forest destruction and concomitant valley fill is the greatest federally permitted land use alteration occurring in the United States. The projected destruction is detailed in the draft EIS and would occur over the next ten years. The impact on avian species, other wildlife and fish, and the entire ecosystem at risk is enormous. 1-9

The Army Corps of Engineers has continued to issue mountain top removal/valley fill Clean Water Act permits for mountain top coal mining, despite the failure to complete an EIS. In Tennessee alone, permits by the Army COE have been issued for the removal and fill of over 5,000 acres of mountain tops in the last year.

We believe that NEPA requires such a moratorium on permits as the environmental impacts are so massive from the projected removal of 380,000 acres of mature deciduous forest on mountain tops and the placement of fill in stream valleys. Further, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current use of nationwide permits is illegal. 4-2

The DEIS is so defective that it fails to substantively discuss the significant impacts on the entire suite of forest-dependent birds within the EIS study area e.g., Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, and Yellow-throated Vireo. All of these bird species are also classified as Birds of Conservation Concern by the U. S. Fish and Wildlife Service within the Appalachian Bird Conservation Region, which overlaps the area considered in the draft EIS. The destruction of the 380,000 acres will result in a loss of 137,836 Cerulean Warblers (ESA listing petition pending) in the next decade. 7-3-2

The U.S. Fish and Wildlife Service's September 20, 2002 memo clearly supports our conclusion that the draft EIS is fatally flawed. The FWS warned in the memo that publication of the draft EIS as written, "will further damage the credibility of the agencies involved." That inter-agency memo cites the proposed actions offering "only meager environmental benefits" and criticizes the draft EIS because it did not consider any options that would actually limit the area mined and the streams buried by valley fills. "There is no difference between [the alternatives]," the Fish and Wildlife officials said. "The reader is left wondering what genuine actions, if any, the agencies are actually proposing." The draft EIS erroneously only offers alternatives that would streamline the permitting process for approval of new mountaintop-removal permits. The alternatives, including the preferred alternative, offer no environmental protections and the lack of any such environmentally sound options destroys the NEPA EIS process. 4-2

The FWS memo argued for "at least one alternative to restrict, or otherwise constrain, most valley fills to ephemeral stream reaches...As we have stated repeatedly, it is the service's position that the three 'action' alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection ... let alone protection that can be quantified or even estimated in advance."

I urge that the permitting of mountain top removal/valley fill cease pending the re-writing of the DEIS and the completion of the EIS process. This is necessary to prevent this ecological disaster.

Sincerely,
Mike Tidwell
301-920-1633
mwtidwell@aol.com
www.chesapeakeclimate.org

Statement of United Mine Workers of America
on
Mountaintop Removal

Since several reports have appeared in the media over the years that incompletely or inaccurately indicate the position of the UMWA with regard to mountaintop removal mining, I believe it would be helpful for me to briefly outline our position. The UMWA believes that strong protection for our environment is essential. As we have pointed out many times, our membership lives in the communities in which mining takes place and believes strongly that we have a duty to future generations to protect that environment. At the same time, we make no apologies for seeking to promote the jobs available in the mining and related industries. After all, these jobs average more than $50,000 per year plus benefits including retiree health care and pensions. West Virginia is already 49th in the per capita income. We surely do not want to drive ourselves into an even more negative position. 11-1-2

Unfortunately, the debate has often been between two extreme positions – one calling for the abolition of coal mining and the other decrying any type of restrictions on mining companies as they damage peoples' houses

and degrade local streams. We do not agree with either of these extreme views.

Some critics have suggested that the UMWA is only interested in the protection of our members' jobs when they work on mountaintop removal sites. Make no mistake, that is important to us. As this statement of policy makes clear, however, we believe that this criticism is unfounded since we also believe in strong environmental and community protections. We do believe that jobs provided in coal mining are worth fighting for and preserving. This is particularly true in our economy in which service sector jobs are often very low paying and without benefits. We are proud of our support for such jobs.

At the same time, we support strong regulatory efforts to protect the water resources of our communities and we also believe that families living in these communities should be protected against blasting debris and the degradation of their communities. We believe that coal companies should be held to a high standard of environmental protection and that the state and federal officials entrusted with that enforcement have on many occasions not sufficiently protected our communities.

The UMWA strongly believes that coal companies should not be permitted to destroy local communities in the process of mountaintop removal mining, including by blasting. Community residents with homes and farms should be protected from the consequences of such damage. Under current law, a homeowner can pursue a damage claim in circuit court. The practical problem is the cost of hiring attorneys and the litigation costs in hiring expert witnesses. 10-2-2

The UWMA believes that there should be additional legal protections to ensure that blasting damage can be easily and completely compensated by coal companies. We suggest a statutory change so that blasting law would be made similar to a provision in state oil and gas law. Under that law, any damage to water supplies caused within 1,000 feet of a gas well is presumed to result from the drilling and operation of the gas well. We likewise suggest that with regard to any property within one mile radius of a blast, there should be a reputable presumption that the blast caused any property damage. This provision, coupled with the present law that a community member may require the company to do a pre-blasting survey, should make the payment of appropriate damages far more practical. This should lead, as it does in the oil 1-6-1

and gas area, to the quick resolution of claims and a more fair protection of community rights.

We also believe that the many sites throughout West Virginia with historical significance, such as the historic portions of Blair Mountain and the Stanley family farm on Kayford Mountain, must be preserved and thus should be off limits for mining. 10-2-2

The coal industry remains "a mainstay of the Mountain State economy." Coal and coal burning utilities account for nearly 60% of the state's business tax revenue, and state business taxes paid by coal companies rose more than 35% between 1985 and 1996, at a time when the price of a ton of West Virginia coal dropped by 26%. West Virginia coal companies employ more than 14,000 miners directly, and using economic multipliers employed by the federal government, the industry accounts for more than 40,000 additional jobs. In much of southern West Virginia and in portions of northern West Virginia, the impact is particularly pronounced. In Boone County , for example, almost half of the workforce is employed in the coal industry. In the coal counties of this state, over 10% of all jobs are directly linked to coal mining. Thus, it is not only in the interests of our membership, 11-4-5

but in the broader interests of the citizenry of this state that these issues be resolved in an equitable and timely manner. This Union has a proud history of working not only in the interests of its own members, but on behalf of all working people and the communities they live in. We fully intend to uphold that tradition.

Progress Energy

Charles R. Wakild, PE

Mr. John Forren
U. S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Via email at mountaintop.r3@epa.gov

RE: Draft Programmatic Environmental Impact Statement
Mountaintop Mining/Valley Fills in Appalachia
EPA 9-03-R-00013

Dear Mr. Forren:

Progress Energy Service Company, LLC is submitting the following comments on behalf of Progress Fuels Corporation. Progress Fuels Corporation currently owns and operates one surface and seven underground coal mines in eastern Kentucky and western Virginia, with average annual production of approximately 2.6 million tons, that would be impacted by the EIS and any proposed regulatory alternatives. In addition, Progress Fuels owns and operates five coal terminals in West Virginia and Kentucky that would also be affected by the final document and any subsequent regulatory changes.

Progress Fuels supports the stated purpose of the Environmental Impact Statement (EIS) "to consider developing agency policies, guidance, and coordinated agency decision-making processes to minimize, to the maximum extent practicable, the adverse environmental effects" of mountaintop mining and valley fills. Progress Fuels also appreciates the agencies' acknowledgement the economic value that coal mining brings to the Appalachia region and the country. It is this value which requires all of us, in partnership, to consider all factors (environmental, economic, and administrative) when considering implementing new or amended programmatic actions. We must recognize the nation's need for reliable energy sources and how mining of the Appalachia region's coal is an integral component of fulfilling this need. Clearly a great deal of effort has been expended on this document, and progress made toward resolution of many identified issues related to surface mining and related valley fills. We commend the agency for likewise identifying several deficiencies in the environmental impact studies and acknowledging the need to answer outstanding questions before regulatory programs changes are implemented.

General

Progress Fuels supports Action Alternative 3 as described in the draft report. It is clear that the timeliness of the permitting process can be improved by streamlining of the application preparation effort, and uniform and consistent application of design criteria and mitigation and other compensatory measures. Under this alternative, the federal agencies would develop a coordinated permit application and review process based on requirements of the Surface Mining Control and Reclamation Act (SMCRA) permit. The Corps of Engineers, using the CWA section 404 nationwide permit program, would base authorizations on the SMCRA agency review of surface coal mining activities. States would be encouraged to assume 404 permitting activities for surface mining through a State Programmatic General Permit. The 404 individual permit process only would be initiated if information in the application is inadequate (data collection, mitigation, alternatives analysis). 1-4

Economic Impact

While the draft report acknowledges the value and benefits of the coal industry in this region, it does not adequately evaluate the value Appalachian coal brings in light of increasingly complex environmental regulation. This region's coal supplies the fuel for a significant amount of the nation's energy supply. Much of the coal provided by surface mines is lower in sulfur and higher in heat content than other alternatives, and is therefore a vital part of environmentally viable energy strategy. It may also be the source of choice as new mercury standards come into effect. Although Powder River Basin coal may be lower in mercury, other constituents may interfere with the ability of emission controls to reach lower mercury emission levels. These issues are currently being evaluated in the scientific literature, but it is for these current and future reasons we must preserve the ability to economically mine Appalachian coal. In order for the industry to provide this valuable resource, it needs clearly defined rules consistently applied so they can plan and invest in economic operations. 11-9-2

In that soil and rock must be moved to create a level area, and some fill placed in the only economically available areas, which may include streams, mining is not unlike many other economic development activities, including road construction. In many areas in this region, significant commercial, residential, and industrial development is only possible because the prior creation of level areas by surface mining.

Aquatic Resources Impact

The studies of water quality downstream of valley fills inappropriately conclude that valley fills consistently cause or contribute to levels of some parameters that exceed water quality standards or criteria. The report correctly acknowledges that the referenced studies, due to study design, resources, or implementation, did not adequately investigate and account for other factors that affect water quality, such as other dischargers (including unpermitted domestic wastes), local geology and topography, 5-5-2

distance from the fills, age of the fills, and others. Additional studies are necessary prior to making such a conclusion to account for all relevant factors and insure that corrective measures in mining permits, if any, are appropriate and effective. The agencies also should consider a flexible use of funds provided by permittees for mitigation of stream losses from fill construction. It may be more beneficial for the overall water quality if, instead of stream restoration, some of the funds are used to correct other man-made impacts, i.e., illegal domestic waste outfalls.

Selenium in particular was identified as a parameter of concern regarding water quality standards downstream of existing fills. We cannot at this point agree with that concern for the following reasons. Water quality standards, especially for metals and metalloids, are usually based on total concentration, and do not distinguish between particulate or dissolved concentrations, or speciation of the element. The species of selenium in solution impacts its toxicity and its true environmental impact. In addition, the size and type of stream and organisms also will dramatically affect the toxic effects. It is important that organisms found in the examined environment be used to assess toxic effects; states usually use a very limited variety of toxicity reference organisms, and these may not include any found in first or second order headwater streams usually downstream of valley fills. For these reasons, a simple comparison to water quality standards is inadequate. Design standards for valley fills must be based on true environmental impact and consideration of cost relative to benefit. Additional work is needed to support this issue prior to determination of any negative selenium environmental impact. 5-5-2

The report found that in general the flood frequency and severity downstream were no worse than before the fills were constructed. That is due to the careful design and construction of mine fills with due consideration of hydrologic characteristics. Most recent examples of flooding downstream of mines used by opponents of surface mines are anecdotal in nature, unscientific, and do not account for unusually heavy rainfall events that have occurred in recent years.

Others

We concur with the comments of the West Virginia and Kentucky Coal Associations and the National Mining Association and support their efforts to work toward consensus alternatives.

We appreciate the opportunity to submit these comments and participate in the development of this important document. If there are any questions, please let me know.

Sincerely,

Charles R. Wakild

Forwarded by David Rider/R3/USEPA/US on 01/08/2004 10:51 AM -----

Jason Wandling <jwandling@calwellaw.com> 01/05/2004 11:17 AM

To: R3 Mountaintop@EPA
cc:
Subject: re: MTR EIS Comment

To Whom it May Concern:

Please find attached the comment of the Charleston, West Virginia, chapter of the National Lawyers Guild re: Mountaintop Removal Mining EIS.

Sincerely,
J. Wandling

The Charleston, West Virginia, chapter of the National Lawyers Guild (WVNLG)[1] urges this Panel to reject every Action Alternative outlined in the Draft Programmatic Environmental Impact Statement (Draft EIS). We ask that you instead adopt a policy that would more accurately reflect the true goals of the Clean Water Act, the National Environmental Policy Act, and the very will of the people you are bound to serve by barring all mountaintop removal mining (MTR). 1-5

WVNLG strongly disapproves of this Panel's Draft EIS. The Draft EIS is no more than a rubber stamp for the interests of the coal industry of West Virginia and the nation. We disapprove for three reasons.

First, this Panel was charged to review the costs and benefits of MTR. Instead, you have disregarded your mandate. As noted by Ken Ward, Jr. in the *Charleston Gazette* "Initially, the goal of the study was to consider new rules that would 'minimize the potential for adverse' impacts from mountaintop removal. But once the Bush administration took office, Deputy Interior Secretary Steven Griles — a former mining lobbyist — changed the focus toward streamlining the permit process for coal operations." *Charleston Gazette*, July 25, 2003. This Draft EIS, then, is nothing more than a perversion of a good faith settlement entered into as part of the *Bragg v. Robertson* litigation. 1-10

In fact, and to our great surprise, this Panel proposes Action Alternatives *less* strict than regulations already in place. It is a slap in the face of the people of the coalfields to be asked to accept a lesser standard when, as Judge Haden wrote in 1999, "The Director [of the West Virginia Department of Environmental Protection] and his agents consistently admit that he [sic]

[1] The National Lawyers Guild is an association dedicated to the need for basic change in the structure of our political and economic system. We seek to unite the lawyers, law students, legal workers, and jailhouse lawyers of America in an organization that functions as an effective political and social force in the service of the people, *to the end that human rights shall be regarded as more sacred than property interests.*

made none of the required findings, on through six, for buffer zone variances when authorizing valley fills." At 647. This Panel's reasoning mirrors that of the recent West Virginia Legislature and soon-to-be-former Governor Wise regarding overweight coal trucks: if someone is breaking the law we should make their activity legal. Unless, of course, first-time, non-violent drug offenders are at issue. In that case mandatory minimum jail sentences are imposed.[2] 1-10

The second reason WVNLG disapproves of this Panel's Drat EIS is because it swallows hook, line, and sinker the coal industry's propaganda concerning the economics of MTR. Instead of making an investigation, this Panels' Draft EIS simply parrots the West Virginia Coal Association's line. For example, a recent West Virginia Geological and Economic Survey (WVGES) report stated:

> "If the practice of mountaintop removal mining is disallowed or curtailed, the production from these operations will not be replaced with underground mining production in the short and very likely not in the long term. As mentioned above, coal beds in the target area interval [the Kanawha Formation and/or Block Zones five, six, and seven] are frequently split into numerous benches separated by inorganic partings of highly variable thickness. Only some of these benches are economically mineable by underground methods. In mountaintop removal mining, many, if not all of the coal benches are recovered, representing a more efficient recovery of the resource." 1-9

"A Geological Overview of Mountaintop Removal Mining in West Virginia," published by the WVGES page 2.

Put into layman's terms (as so little of this exercise in appeasement has been), coal in southern West Virginia has become too expensive to mine in any reasonable manner. Therefore, the industry reasons, coalfield residents should simply shut up and endure an ever-diminishing quality of life, including, among other things, constant blasting from nearby mines, incalculable amounts of coal dust in their homes, and irreversible environmental damage in their very backyards. The cost of cheap, American energy (according to Vice President Dick Cheney and his industry-controlled Energy Task Force) is a native population debased for the sake of others living well afield from the source of energy production. What moral system demands such sacrifice from an already disadvantaged population?[3]

[2] To ill effect. See, for example, United States Attorney General John Ashcroft's new push to monitor and investigate federal judges who impose lighter sentences than those established by mandatory minimum sentencing guidelines for first-time offenders.

[3] Actually, the history of the United States is replete with such examples, from the callous disregard for the citizenry of Michigan (abandoned by an auto manufacturing industry that preferred cheap foreign labor and nonexistent environmental regulations over healthy communities here at home; so much for the current, voguish patriotism), the well-documented but still disregarded plight of the American Native Indian (who inhabited the Appalachians before their near extermination and ultimate forced removal); and, in a very relevant example, the Appalachian settlers who were displaced by the rampant forest fires and floods created by the first Appalachian timber boom in the preceding century (today's second wave of logging contributes to today's environmental and social), among other examples. The question is begged: where does American industry stop its ravenous drive for profit while it very knowingly lays waste to American citizens and culture? At what point will industry reflect and consider the effects of its insatiable greed? Never, is the WVNLG's answer, because the legal fiction of the "corporation" only recognizes capital gain, in its most brute sense, and only stops when a powerful citizenry demands consideration. Your writers draw that line at this crisis, and this Panel is obligated to recognize, via the social contract by which *most* of us

The coal industry's adoption of such terms as "economical recovery" belie its underpinning motivation: the need to make a lot of money and the lack of concern about who suffers for its egregious profit.[4] For that reason alone, this Panel should punish the coal industry's injurious avarice by ending MTR altogether.

Despite the conventional wisdom that all of southern West Virginia's economy depends solely on the energy industry,[5] coal mining has not, for a very long time now, provided much true sustenance for the citizens of the coalfields in which the method is practiced. A great number of the ever-shrinking population of coal miners come from areas in Kentucky and Ohio, often driving great distances to find employment in West Virginia mines or setting only temporary residence in the coalfields. Furthermore, the secondary businesses which depend on coal mining revenue are, despite the most optimistic government and industry estimates to the contrary, spread far and few between. A drive through any coalfield community will quickly dissuade any neutral observer otherwise. 1-9

WVNLG objects for a third reason: the Draft EIS will encourage further lawless behavior in the coal industry. It cares little for ANY law, not just technical stream buffer regulations. For example, Don Blankenship, president of Massey Energy, recently testified before a West Virginia Legislature subcommittee charged with investigating coal truck weight limits. When confronted with the lamentable new law allowing coal truck to run up to 120,000 pounds (up from the rarely enforced standard of 80,000 pounds), Blankenship showed typical disregard for the safety of coalfield residents, saying "The truth of the matter is, the industry has been allowed through common law, if you will, to haul 140 [thousand pounds] to 160 [thousand pounds]."[6]

If this Panel approves *any* new permitting process under the proposed Action Alternatives, WVNLG predicts, that it will not be long before Blankenship or West Virginia

abide, to recognize that tipping point.

[4] This vulgar drive has not always been so deified. Albert O. Hirschman, of Princeton University and editor of *The Passions and the Interests*, a survey of the rise of commercial capitalism from the Middle Ages to today and must reading especially for those who consider contemporary commercial lust an *a priori* virtue, mused in his introduction: "How did commercial, banking, and similar money-making pursuits become honorable at some point in the modern age after having stood condemned or despised as greed, love of lucre, and avarice for centuries past?" Introduction to *The Passions and the Interests*, page 3 (Princeton, 1977).

[5] Surely, if coal industry executive were truly as concerned about free market economics, they would be forced to recognize that if secondary economies were negatively impacted by the sudden end (and unlikely, given this Panel's politicized findings) of MTR then the "market" would demand that those businesses expire or thrive, with or without the aid of coal dollars in the coalfield cities.

[6] Blankenship's logic fails entirely. Whatever his conception of the "common law," it certainly bears no relation to the body of judicial opinion that makes up a great deal of American law. Interestingly, Blankenship makes reference to the American common law when its purpose suits him. Otherwise, any use of the tort system to effectuate public policy constitutes "frivolous litigation." For example, in the coal industry's opposition brief to lawsuits filed against various coal companies, including Massey Energy and its subsidiaries, for damages caused by the flooding of 2001, industry attorneys wrote, "[the plaintiffs] argue that, despite almost two hundred years of mining within the state, the courts should now, through judicial fiat, ban all such activity as "inappropriate" based on a "policy" never considered, much less adopted, by the citizens of West Virginia, either through a constitutional amendment or indirectly through their elected representatives." The Coal Industry's Supplemental Memorandum in opposition to Plaintiffs' "Legal Theories of Liability," filed in Raleigh County In Re: Flood Litigation, Civil Action Number 02-C-797. Such backhandedness simply reinforces the fact that the coal industry needs to be more tightly regulated, not deregulated as this Panel's Action Alternatives suggest.

Coal Association President Bill Raney suggests "We're breaking the law anyway so why don't we change the law again to reflect our current practices?" Such brazen and stultifying logic could easily be played out in any number of arenas. For instance "Well, I kill people now so the penal code forbidding such conduct should reflect the ultimate realities of my habit and ease." How patently absurd! Unfortunately, this panel has adopted, wholesale, such spoiled logic at the spurning of a corrupt and deceitful administration.

The residents of the coalfield communities are forced to resign themselves to something of the ethic embodied in this Charles Simic poem:

"Cameo Appearance"

I had a small, nonspeaking part
In a bloody epic. I was one of the
Bombed and fleeing humanity.
In the distance our great leader
Crowed like a rooster from a balcony,
Or was it a great actor
Impersonating our great leader?

That's me there, I said to the kiddies.
I'm squeezed between the man
With two bandaged hands raised
And the old woman with her mouth open
As if she were showing us a tooth

That hurt badly. The hundred times
I rewound the tape, not once
Could they catch sight of me
In that huge gray crowd.
That was like any other gray crowd.

Trot off to bed, I said finally.
I know I was there. One take
Is all they had time for.
We ran, and the planes grazed our hair.
And then they were no more
As we stood dazed in the burning city.
But, of course, they didn't film that.

If only this Panel could at least pretend that coalfield residents were not so insignificant in the face of the coal industry's all-consuming, avaricious capitalism.

Accordingly, the Charleston, West Virginia, Chapter of the National Lawyers Guild urges this panel go back to the table, and realistically address the destruction of Appalachia caused by mountaintop removal mining and strictly enforce the long-standing provisions and policies of the Clean Water Act, the National Environmental Policy Act, and basic compassion and utilize common sense by bringing MTR to a halt.

1-9

Respectfully Submitted,

_____

Jason Eric Wandling
Treasurer, Charleston, West Virginia, Chapter of the National Lawyers Guild

HAZARD/PERRY COUNTY CHAMBER OF COMMERCE

601 Main Street • Suite #3
Hazard, KY 41701
(606) 439-2659

July 22, 2003

Department for Surface Mining
#2 Hudson Hollow
Frankfort, Kentucky 40601

To Whom It May Concern:

As President of the Hazard/Perry County Chamber of Commerce and Chairman of the Hazard/Perry County Industrial Board, I would like to include my letter of endorsement in support of mountaintop removal and continued hollow filled mining in Eastern Kentucky. 1-11

The level sites created by mountaintop removal promotes our economy in numerous capacities. These sites can be used for new industry, housing, and various business opportunities, as well as a new golf course. 10-3-5

I would appreciate your consideration in this matter.

Sincerely,

Tony Whitaker,
President/Chairman
Hazard/Perry County
Chamber of Commerce and Industrial Board

January 2, 2004

John Forren
U.S. EPA (3EA30), 1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 0 5 2004

Dear Mr. Forren,

We write on behalf of the 50 undersigned groups, representing millions of Americans, concerning the Draft Programmatic Environmental Impact Statement on Mountain Top Mining/Valley Fill (MTM/VF) in the Appalachian region of the eastern United States. We are extremely troubled over the harmful impacts that mountaintop/valley fill mining has had and could continue to have on a wide array of aquatic and terrestrial organisms. In addition to the direct effects of habitat loss and degradation at mine sites and areas immediately adjacent, the drastic alteration of large landforms over such an extensive region could very well have negative and long-lasting effects on ecosystem processes at considerable distances from the areas more directly disturbed. These concerns are not adequately addressed in the draft EIS. However, despite our serious concerns regarding the potential for disrupting ecological processes and biodiversity in general, these comments are specifically directed to issues regarding migratory birds. The impacts to forest-associated bird species of conservation concern also are not adequately or properly addressed in this draft EIS. 7-3-2

I. The DEIS Ignores the High Priority Assigned through Congress by Wildlife Agencies to the Conservation of Mature Forest Bird Species.

The figures from the draft EIS on cumulative impacts of mining activity in the study area suggest a massive and permanent impact on the entire suite of Partners in Flight priority mature forest birds within the EIS study area (e.g., Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher) due to a projected loss of over 380,000 acres (149,822 hectares) of high-quality forest to mining in the next ten years. This is in addition to that same amount having been lost in the previous ten years. All of these bird species are also classified as Birds of Conservation Concern by the U. S. Fish and Wildlife Service (USFWS 2002) within the Appalachian Bird Conservation Region, which overlaps the area considered in the draft EIS. This list is mandated by Congress under 1988 amendments to the Fish and Wildlife Conservation Act and denotes species that without additional conservation actions are likely to become candidates for listing under the Endangered Species Act. We consider this level of habitat loss to constitute a significant negative impact for these high priority mature forest birds, and especially for the Cerulean Warbler, the forest species of highest concern in this area. We are struck by the failure of the draft EIS to address this extremely important and significant environmental impact. 8-2-5

While we don't have reliable estimates of the densities of most of these priority species in the region, we do have them for Cerulean Warblers. This is the forest-breeding bird species we are most concerned with because it has suffered drastic population declines

over the last several decades and the core of its breeding range coincides very closely with the EIS study area (Figure 1). This species has been petitioned for listing under the Endangered Species Act and is also on the USFWS' National List of Birds of Conservation Concern (USFWS 2002).

II. The DEIS Ignores Available Scientific Data Showing Higher Bird Densities and Higher Potential Losses from Mining Impacts.

Recent research by Drs. Weakland and Wood (2002) at West Virginia University found the average density of Cerulean Warblers territories in intact forest near mined areas in West Virginia was 0.46 pairs/hectare (ha). Assuming each territory provides habitat for a pair of birds, this equates to 0.92 individuals/ha. With the projected loss of over 149,822 ha to future mining in the next ten years, this will result in a loss of 137,836 Cerulean Warblers in the next decade. Dr. Charles Nicholson (TVA 2002) reported a somewhat higher average density of 0.64 pairs of Cerulean Warblers per ha at his study sites within the draft EIS study area in eastern Tennessee. If his density estimate is more representative of the density over the study area, then even more ceruleans would have been impacted in the last decade and the same number would be impacted in the next. Either estimate represents an unacceptable loss.

Partners in Flight (PIF), a science-based initiative dedicated to the conservation of landbirds in the western hemisphere, estimates the global population of Cerulean Warblers, based on relative abundance estimates derived from 1990s Breeding Bird Survey data, to be roughly 560,000 individuals with 80% of the population breeding in the Appalachian region which encompasses the study area (Rich et al. 2004). Applying similar methods, BBS survey data indicate that the average breeding density of Cerulean Warblers across the Northern Cumberland Plateau physiographic area during the 1990s was 0.065 pairs/acre (Rich et al. 2004. Appendix B, Rosenberg and Blancher in press). These numbers indicate that roughly 9% of the world's ceruleans were lost as a result of mining permitted during the 1992 to 2002 period and another 9% will be lost between 2003 and 2012 should the level of mining the draft EIS projects in the next decade come to fruition. In addition, we fear that in a region where Cerulean Warblers presently occur in such high densities, the breeding habitat could already be saturated and the individuals displaced by mines wouldn't be able to find new areas of high-quality breeding habitat to colonize. If this is the case, the reproductive potential of those pairs also will be compromised and the ability of the population to recover will be reduced as a result. 8-2-5
It is important to note that these estimates of Cerulean Warbler population loss substantially underestimate the actual impact of mountaintop mining on this species. By definition, mountaintop mining removes forest habitat on mountain and ridge tops. Cerulean Warblers prefer ridgetops within large blocks of mature forest (Weakland and Wood 2002) In addition, Drs. Weakland and Wood (2002) found significantly reduced densities of breeding Cerulean Warblers in forest fragmented by mining and in forest adjacent to mine edges. We find it disturbing and unacceptable that Dr. Weakland and Dr. Wood's research was not included in the draft EIS document when we know that it was made available to those who were involved in its development.

III. The DEIS Fails to Address Technology Changes that will Alter Projections of Future Forest Loss

We believe that the draft EIS projection that an additional 3.4% of forest will be lost between 2002 and 2012 may significantly underestimate the impact of mining on hardwood forests. Not only do these figures fail to include an estimate of the cumulative loss of cove forests from valley fill operations, they also do not take into consideration the anticipated increase in future demand for Appalachian coal due to the planned construction of flue gas desulfurization units (scrubbers) at existing coal-fired generating plants in the study area (TVA 2002). For example, the draft EIS projects that Tennessee will issue permits causing the loss of 9,154 acres of forest in 2003 through 2012, when over 5,000 acres of surface mining permits have already been approved between December 2002 and October 2003 (Siddell 2003). 7-5-3

IV. The DEIS Fails to Identify and Analyze Effective Mitigation Measures to Reduce Bird Losses

The only mitigation offered in the draft EIS for the destruction of large areas of biologically diverse hardwood forest habitat by mining operations is a suggestion that the denuded areas could be reforested after operations cease. While recent research indicates that some forest communities may be reestablished on reclaimed mine sites (Holl et al. 2001), the draft EIS concedes that initiatives to improve the establishment of forests on reclaimed mine sites have only recently begun and "that it would be premature to attempt to evaluate the success of these efforts at this time". In addition, the draft EIS states that "as post-mined sites will likely lack the requirements of slope, aspect and soil moisture needed for cove-hardwood forest communities, it is unlikely that these particular communities can be re-established through reclamation". It will take many decades before these experimental forests mature sufficiently to assess whether they will provide suitable breeding habitat for Cerulean Warblers or any other interior forest-breeding birds of concern. Even if reforestation was determined to be the preferred mitigation for Cerulean Warbler habitat loss, the development of reforestation BMPs (Action 13) would be voluntary and a state or federal legislative change (Action 14) could take years. The suggestion that reforestation is a panacea to mitigate the negative effects of mining on interior forest habitat within the foreseeable future is therefore wrong and misleading. Furthermore, we find it extremely inappropriate that the draft EIS suggests that a mining company could be offered an economic incentive, through the sale of carbon credits, for planting trees to replace the forest that they themselves destroyed during mining activities. 7-3-3

We also find it inappropriate to consider replacing forest habitat with grassland habitat for "rare" eastern grassland species even though these species have declined dramatically as a group in recent decades. Their recovery and habitat restoration efforts should be targeted towards ecosystems and landscapes where they occurred historically, not on eastern mountaintops, where grassland habitat was rare, and currently supports high quality forest habitats.

V. The DEIS Fails to Identify and Analyze Reasonable Alternatives to Avoid Bird Losses

We find the draft EIS' failure to provide an alternative proposal that would provide better regulation of mountain top mining to protect the environment unacceptable and inappropriate. We believe that taken together, these two major flaws are fatal and require the re-issuance of the draft EIS. These fatal flaws mean the draft EIS fails to comply with NEPA. The draft EIS needs to be cured by an EIS that appropriately addresses both the concerns over priority bird species mentioned herein and that offers a solid environmentally sound alternative.

The U.S. Fish and Wildlife Service's September 2002 (USFWS 9/20/02) memo clearly supports our conclusion that the draft EIS is fatally flawed. The FWS warned in the memo that publication of the draft EIS as written, "will further damage the credibility of the agencies involved." That inter-agency memo cites the proposed actions offering "only meager environmental benefits" and criticizes the draft EIS because it did not consider any options that would actually limit the area mined and the streams buried by valley fills. "There is no difference between [the alternatives]," the Fish and Wildlife officials said. "The reader is left wondering what genuine actions, if any, the agencies are actually proposing." The draft EIS erroneously only offers alternatives that would streamline the permitting process for approval of new mountaintop-removal permits. The alternatives, including the preferred alternative, offer no environmental protections and the lack of any such environmentally sound options destroys the NEPA EIS process.

4-2

The FWS memo argued for "at least one alternative to restrict, or otherwise constrain, most valley fills to ephemeral stream reaches...As we have stated repeatedly, it is the service's position that the three 'action' alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection ... let alone protection that can be quantified or even estimated in advance."

VI. Because the DEIS Is Fatally Defective, It Should Be Revised and Reissued for Public Comment and Permit Issuance Should Cease.

We do not find that the three "action" alternatives offered would improve environmental protection in any measurable way. We propose that a moratorium be placed on new mountaintop mining permits until a new draft EIS is written to provide for the avoidance of key Cerulean Warbler habitat and significant environmental protection for the Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, Yellow-throated Vireo, Acadian Flycatcher and other PIF priority species and FWS Birds of Conservation Concern. This moratorium should continue until a final EIS is adopted with an environmentally acceptable alternative.

We believe that NEPA requires such a moratorium as the environmental impacts are so great and the federal government has failed to complete an EIS as required, even after 5 years have passed since litigation was initially filed on this issue. Settlement of the litigation was to result in an EIS and better measures to protect the environment. The draft EIS clearly indicates that this is not occurring. Also, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current use of nationwide permits is illegal. 4-2

We conclude that mining is a short-term benefit to local economies and once the coal is extracted, the industry will leave the region. However, if the scenic vistas and natural heritage of the area are preserved, an economy buoyed by recreation and tourism would provide added value for generations to come. 11-7-2

We appreciate the opportunity to comment on this Draft Environmental Impact Statement.

Respectfully Submitted on Behalf of all the Undersigned Individuals and Organizations,

Gerald W. Winegrad, Vice President for Policy
American Bird Conservancy
P.O. Box 249
The Plains, VA 20198
540-253-5780
gww@abcbirds.org

Melinda Welton, Conservation Chair
Tennessee Ornithological Society
5241 Old Harding Road
Franklin, TN 37064
615-799-8095
weltonmj@earthlink.net

Caroline Kennedy, Director of Special Projects
Defenders of Wildlife
1130 17th Street, N.W.
Washington, D.C. 20036-4602
202-682-9400, extension 107
ckennedy@defenders.org

Bette Stalman, Ph.D., Wildlife Scientist
The Humane Society of the United States
2100 L Street, N.W.
Washington, D.C. 20037
301-258-3147
bstallman@hsus.org

Will Calaway, Executive Director
Tennessee Environmental Council
One Vantage Way, Suite D-105
Nashville, TN 37228
615-248-6500
www.tectn.org

Janet Fout, Co-Director
Ohio Valley Environmental Coalition
P.O. Box 6753
Huntington, WV 25773-6753
304-522-0246
ohvec@ohvec.org

Hap Chambers, President
Kentucky Ornithological Society
33 Wildwood Drive
Murray, KY 42071
270-753-9636

Teta, Kain, President
Virginia Society of Ornithology
7083 Caffee Creek Lane
Gloucester, VA 23061
teta@vims.edu

Daniel Boone, President
Tennessee Conservation Voters
2021 21st Avenue South, Suite 104
Nashville, TN 37212
615-269-9090

Julia Bonds, Community Outreach Coordinator
Coal River Mountain Watch
P.O. Box 651
Whitesville, West Virginia 25209
crmw@ citynet.net

John R. Cannon, Ph.D., Director
Conservation Science Institute
1447 Stoney Bottom Road
Front Royal, VA 22630
jcannon@humtech.com

Perrin de Jong, Coordinator
Kentucky Heartwood
P.O. Box 555
Lexington, KY 40588
859-253-2697
kyheartwood@alltel.net

Stephen Smith, Executive Director
Southern Alliance for Clean Energy
117 Gay Street
Knoxville, TN 37902
865-637-6055
www.cleanenergy.org

William J.L. Sladen, Director
Environmental Studies at Airlie
7078 Airlie Road
Warrenton, VA 20187
wjsladen@aol.com

Carol Lambert, Conservation Chair
Georgia Ornithological Society
4608 Westhampton Drive
Tucker, GA 30084
lambertsewell@mindspring.com

Reverend Walter Stark
Cumberland Countians for Peace & Justice
P.O. Box 154
Pleasant Hill, TN 38578
931-277-5239

Reverend Charles Lord
Obed Watershed Association
P.O. Box 464
Pleasant Hill, TN 38578
931-277-3714

Doug Murray, Director
Tennessee Forest Watch
278 Log Home Road
LaFollette, TN 37766
423-562-5934

Edward E. Clark, Jr., President
Wildlife Center of Virginia
P.O. Box 1557
Waynesboro, VA 22980
eclark@wildlifecenter.org

Donald B. Clark, United Church of Christ
Network for Environmental & Economic Responsibility
P.O. Box 220
Pleasant Hill, TN 28578
931-277-5467
clarkjd@frontiernet.net

Maureen F. Harvey, Conservation Chair
Maryland Ornithological Society
302 Chelsea Court
Sykesville, MD 21784
maureen.harvey@jhuapl.edu

Robert R. Reid, Jr., Conservation Comm.
Alabama Ornithological Society
2616 Mountain Brook Parkway
Birmingham, AL 35223
205/879-1935
rrr1935@mindspring.com

Tracy Davids, Executive Director
Southern Appalachian Biodiversity Project
PO Box 3141
Asheville, North Carolina 28802
828-258-2667
www.sabp.net

Tonya Boston- Sagar, Vice President
PA Wildlands Recovery Project
PO Box 972
State College, PA 16801
meg5@psu.edu

Jayme Hill, Executive Director
Alabama Environmental Council
2717 Seventh Ave. South, Suite 307
Birmingham, AL 35233
205/322-3126
director@aeconline.ws

Cary Nicholas, Executive Director
Audubon Pennsylvania
100 Wildwood Way
Harrisburg, PA 17110
cnicholas@audubon.org

Robert R. Reid, Jr., Chairman,
Conservation Committee
Alabama Audubon Council
2616 Mountain Brook Pkwy.
Birmingham, AL 35223
205/879-1935
rrr1935@mindspring.com

Cecilia M. Riley, Executive Director
Gulf Coast Bird Observatory
103 W. Highway 332
Lake Jackson, TX 77566
(979)480-0999
criley@gcbo.org

Gwen Marshall, Network Coordinator
Protect Biodiversity in Public Forests
1417 Bercliff Ave.
Cincinnati, OH
45223PBIPF@fuse.net

John Blair, President
Valley Watch, Inc.
800 Adams Avenue
Evansville, IN 47713
812-464-5663
Ecoserve1@aol.com

Alan C. Gregory, Conservation Chairman
Greater Wyoming Valley Audubon Society
P.O. Box 571
Conyngham, PA 18219
meg5@psu.com

Marilyn F. Campbell, Exec. Dir.
Illinois Audubon Society
PO Box 2418
Danville, IL 61834
director@pdnt.com

Neal Fitzpatrick, Executive Director
Audubon Naturalist Society of the Central Atlantic States
8940 Jones Mill Road
Chevy Chase, MD 20815
neal@audubonnaturalist.org

William P. Mueller, Conservation Chair
Wisconsin Society for Ornithology
1242 S. 45th Street
Milwaukee, WI 53214
iltawas@earthlink.net

Joy Hester, Executive Director
Houston Audubon Society
440 Wilchester
Houston, Texas 77079
jhester@houstonaudubon.org

Cheryl Strong, Waterbird Program Director
San Francisco Bay Bird Observatory
P.O. Box 247
Alviso CA 95002
cstrong@sfbbo.org

Troy Ettel, Director of Conservation and Stewardship
New Jersey Audubon Society
PO Box 693
11 Hardscrabble Road
Bernardsville, New Jersey 07924
908-766-5787, extension 17
tettel@njaudubon.org

Ray Shortridge, President
Amos W. Butler Audubon Society
P.O. Box 80024 Indianapolis, IN 46280
317-767-4690

Linda E. Leddy, President
Manomet Center for Conservation Sciences
81 Stage Point Road
Manomet, MA 02345-1770
lleddy@manomet.org

Brett Jenks, President and CEO
Rare
1840 Wilson Boulevard, Suite 204
Arlington, VA 22201
703-522-5070
bjenks@rareconservation.org

Malcolm C. Coulter, Co-Chair
Specialist Group on Storks, Ibises and Spoonbills
PO Box
480 Chocorua, New Hampshire 03817
(603) 323 - 9342
CoulterMC@aol.com

Karen Etter Hale, Executive Secretary
Madison Audubon Society
222 S Hamilton St, Suite 1
Madison, WI 53703-3201
608/255-BIRD (2473)
masoffice@mailbag.com

David F. DeSante, Ph.D., Executive Director
The Institute for Bird Populations
11435 State Route One, Suite 23
P.O. Box 1346
Point Reyes Station, CA 94956-1346
415-663-2052
ddesante@birdpop.org

Taber D. Allison, Ph. D. Vice President, Conservation Science
Massachusetts Audubon Society
208 South Great Road
Lincoln, MA 01773
(781) 259-2145
tallison@massaudubon.org

John W. Fitzpatrick, Ph.D., Director
Cornell Laboratory of Ornithology
159 Sapsucker Woods Rd.
Ithaca, New York 14850
jwf7@cornell.edu

E. A. Schreiber, Ph.D., Conservation Chair
Association of Field Ornithologists
Bird Dept., MRC 116
Smithsonian Institution
Washington, D. C. 20560
703 768-6726
SchreiberE@aol.com

Clarke Kahlo, Program Director
Protect Our Rivers Now!
4454 Washington Boulevard
Indianapolis, In 46205
(317) 283-6283

Andy Mahler, Director
American Forest Alliance
3875 SCR 50W
Paoli IN 47454
andy@blueriver.net

Timothy Male, PhD., Senior Ecologist
Environmental Defense
1875 Connecticut Avenue, NW
Washington, DC 20009
202-387-3500 ext. 3313
tmale@environmentaldefense.org

Cecilia M. Riley, Executive Director
Gulf Coast Bird Observatory
103 W. Highway 332
Lake Jackson, TX 77566
979-480-0999
criley@gcbo.org

REFERENCES:

Holl, K. D., C. E. Zipper and J. A. Burger. 2001. Recovery of native plant communities after mining. Virginia Cooperative Extension Publ. 460-140. [Online version available at <http://www.ext.vt.edu/pubs/mines/460-140/460-140.html>]

Rich T. D. et al. 2004 in press. PIF North American Landbird Conservation Plan. To be published by Cornell Lab of Ornithology, Ithaca, NY. [Online draft available at http://www.birds.cornell.edu/pifCapeMay/PIF_Final_Draft.pdf]

Rosenberg, K. V., S. E. Barker, and R. W. Rohrbaugh. 2000. An atlas of Cerulean Warbler populations: Final report to the U.S. Fish and Wildlife Service. December 2000. [Online version available at <http://birds.cornell.edu/cewap/cwapresults.htm>]

Rosenberg, K. V. and P. J. Blancher. In press. Setting numerical population objectives for priority landbird species. Pg. xx-xx in Proceeding of the 3rd International Partners in Flight Conference. C. J. Ralph and T. D. Rich Editors. USDA Forest Service Gen. Tech. Rep. PFW-GTR-xxx, Albany, CA.

Siddell. D. 2003 Recent Tennessee Permits. Supervisor, Technical Group, Office of Surface Mining, Knoxville, TN.

Tennessee Valley Authority. 2002. Braden Mountain surface mine; Campbell and Scott Counties, Tennessee. Tennessee Valley Authority, Knoxville.

U.S. Fish Wildlife Service. 2002. Birds of conservation concern 2002. Division of Migratory Bird Management, Arlington, Virginia. 99pp. [Online version available at <HTTP://MIGRATORYBIRDS.FWS.GOV/REPORTS/BCC2002.PDF>]

U.S. FISH WILDLIFE SERVICE. 9/20/02. COMMENTS ON DRAFT MTM/VF EIS OF CHAPTER IV (ALTERNATIVES).

USGS. 2003. THE NORTH AMERICAN BREEDING BIRD SURVEY RESULTS AND ANALYSIS, 1966 – 2002. <HTTP://WWW.MBR-PWRC.USGS.GOV/BBS/BBS.HTM>. CERULEAN WARBLER RELATIVE ABUNDANCE MAP [AVAILABLE ONLINE AT <HTTP://WWW.MBR-PWRC.USGS.GOV/BBS/HTM96/MAP617/RA6580.HTML>

WEAKLAND, C. A. AND P. B. WOOD. 2002. CERULEAN WARBLER (DENDROICA CERULEA) MICROHABITAT AND LANDSCAPE-LEVEL HABITAT CHARACTERISTICS IN SOUTHERN WEST VIRGINIA IN RELATION TO MOUNTAINTOP MINING/VALLEY FILLS. FINAL PROJECT REPORT SUBMITTED TO USGS BIOLOGICAL RESOURCES DIVISION, SPECIES-AT-RISK PROGRAM. [AVAILABLE ONLINE AT HTTP://WWW.FORESTRY.CAF.WVU.EDU/PWOOD/>]

Recovery of Native Plant Communities after Mining

Author: Karen D. Holl, Assistant Professor, Department of Environmental Studies, University of California; Carl E. Zipper, Assistant Professor and Extension Specialist, Crop and Soil Environmental Sciences; and James A. Burger, Professor of Forestry, Virginia Tech

Publication Number 460-140, April 2001 Virginia Cooperative Extension

Introduction

Coal surface mining and mine reclamation have had a significant impact on the landscape throughout the Appalachian region, including southwestern Virginia's coalfields. This fact is recognized by the Surface Mining Control and Reclamation Act (SMCRA), which states that mining operations shall establish "a diverse, effective, and permanent vegetative cover of the same seasonal variety and native to the area ... and capable of self-regeneration and plant succession ..." [Section 515(b)19], unless introduced species are necessary to achieve the post-mining land use. Restoring the native hardwood forest is the most direct and comprehensive way of meeting this premise of SMCRA in Appalachian landscapes. Re-establishment of this self-sustaining ecosystem on reclaimed mines can aid in maintaining native wildlife populations while providing other valuable ecosystem services, such as erosion control, carbon sequestration, wood production, water-quality improvement, and watershed protection. Re-establishment of native hardwood-forest ecosystems also contributes to the natural beauty of the Appalachian region.

This publication summarizes research on the impacts of reclamation practices on re-establishment of native Appalachian forest ecosystems, and describes practices that may be used during reclamation to encourage re-establishment of native hardwood forest plant communities.

Appalachian Forest Ecosystems

The mixed mesophytic hardwood forest of the central Appalachians is one of the most diverse temperate ecosystems. These forests served as refuge for moist-forest species during drier glacial epochs and, therefore, are home for a large number of species. The forests often host up to 25 tree species in a given area, along with a diverse understory of ferns, fungi, and herbaceous plants. Common tree species, such as oaks (Quercus spp.), maple (Acer spp.), hickory (Carya spp.), and tulip poplar (Liriodendron tulipifera), not only provide habitat for a wide range of bird, amphibian, and wildlife species, but are also commercially valuable. These forests play an important role in maintaining the water quality in nearby streams including southwest Virginia's Clinch - Powell river system which hosts numerous endemic species of mussels, fish, and crayfish, and is among the most diverse temperate freshwater ecosystems. Large areas of Appalachian forest have been cleared for agriculture and other human uses. Continuous tracts of forest are important for conservation of animal and plant species.

Changing Reclamation Practices over Time:
Prior to SMCRA, mine reclamation practices were variable and often resulted in exposed highwalls, unstable outslopes, and low ground cover. During the earliest surface mining, very little reclamation was performed. Between 1972 and 1977 in Virginia, most mined areas were seeded with grasses, clovers, and black locust (Robinia pseudoacacia); eastern white pine (Pinus strobus) was often planted along the top of the outslope in an effort to disguisehide the exposed highwalls. With the passage of the Surface Mining Control and Reclamation Act (SMCRA) in 1977, reclamation practices were mandated and standardized. SMCRA required that the approximate original contour of the mined area be restored, and that reclaimed areas be seeded with herbaceous vegetation to minimize erosion and to achieve the 90% ground cover after five years. Many post-SMCRA mined areas throughout the Appalachians were reclaimed to hayland - pasture postmining land uses; reclamation practices on these areas included use of aggressive groundcover vegetation such as Kentucky 31 tall fescue (Festuca arundinacea) and sericea lespedeza (Lespedeza cuneata). Many of these areas, however, were not used for production of hay or pasture, allowing natural ecosystem succession processes to take place. During the late 1980s and early 1990s, reclamation of mined areas to unmanaged-forest postmining land use became more common, especially in Virginia. These areas were often seeded with the same aggressive groundcovers that are effective in creating hayland - pasture, such as Kentucky 31 tall fescue and sericea lespedeza. Black locust was often seeded with herbaceous groundcover, and eastern white pine was planted as two-year old seedlings. In the mid- and late-1990s, some mining operators began using less competitive ground covers, as described by Burger and Torbert (1993), and a wider range of planted tree species, including hardwoods, to produce forested areas.

Because success of reclamation is normally judged after five years, reclamation efforts often focus on short-term results and bond release. When the mining is conducted on a pre-SMCRA abandoned mine site, the liability period can be as short as two years. After final bond release, most post-mining lands receive little management and go through succession, the process by which species slowly replace one another as the community develops toward a relatively stable species composition called climax vegetation.

There is an increasing interest in restoring Appalachian forest ecosystems after mining. Yet, there have been few studies monitoring long-term vegetation recovery on coal surface mined lands reclaimed in the Appalachian region using different reclamation practices. Holl surveyed the trees, shrubs, and herbs on 15 reclaimed mine sites and five unmined hardwood sites in Wise County, Virginia, during the summers of 1992-1993 and again in summer 1999 (Holl and Cairns 1994; Holl 2000). A summary of that research is presented below, along with a description of reclamation practices that may be used to aid recovery of the native hardwood forest plant community.

Research Summary

Study Sites
Twenty 0.6-acre plots were surveyed during summer 1992/1993 and summer 1999. These included:

* 5 sites reclaimed 1980-1987
* 5 sites reclaimed 1972-1977
* 5 sites reclaimed 1967-1972
* 5 unmined hardwood forest sites ("reference sites")

The majority of the sites are located on or near the Powell River Project Education Center. The other sites are located near the town of Appalachia. All sites are on steep south-facing slopes, ranging in elevation from 2300 to 3030 ft. Vegetation was sampled in three layers: herb (up to 2.5 feet tall); shrub (2.5 - 8.2 feet tall); and tree (taller than 8.2 feet). Sampling techniques followed those outlined in Holl and Cairns (1994). Cover and number of species were measured in both years and compared.

Summary of Research Results:
Herbaceous layer
In the 1992-93 surveys, herbaceous groundcover was greater than 80% in sites reclaimed after 1972 (Figure 1A). Herbaceous cover dropped substantially between 1992-93 and 1999 on the 1980-87 reclamation sites due to shading by white pine, and on the 1972-77 reclamation sites due to shading by red maple (Acer rubrum), sweet birch (Betula lenta), and other trees. The shift in herbaceous cover to tree cover was interpreted as resulting from the absence or decline of species that compete with small tree seedlings for light and nutrients, such as sericea lespedeza, orchard grass, and Kentucky 31 fescue, and the reduced density of early-successional species such as aster and goldenrod species (Aster spp., Erigeron spp., Hieracium spp., and Solidago spp.). Herbaceous groundcover on the 1967-72 sites was intermediate (about 60%) and changed little between the sampling periods.

During the time period between the two vegetation samples, the number of naturally-colonizing herb species on the 1972-77 and 1980-87 reclamation sites declined, while the number of species growing in the oldest reclaimed sites remained higher (Figure 1B). The decrease in species growing on the 1972-77 and 1980-87 reclamation sites is surprising as species numbers usually increase early in the forest development process. A number of forest herbs such as wild geranium (Geranium maculatum), snakeroot (Sanicula canadensis), and galax (Galax aphylla) are found on the oldest reclaimed sites but not on those reclaimed more recently. The lower number of naturally colonizing herb species on the 1972-77 and the 1980-87 reclaimed mine sites may be due to the more aggressive ground covers commonly planted by mining operators during those periods, and the invasion of sericea lespedeza from other reclaimed mine sites into planted covers. Another possible explanation could be the larger scale of mining, which resulted in increased distances to seed sources.

Trees
The largest increase in tree basal area between sampling periods occurred on the 1980-87 reclamation sites as they were planted primarily with eastern white pine, a fast-growing species (Figure 2A). Tree basal area also increased on the other reclaimed sites due to colonization and growth of hardwood species. The number of tree and shrub species present increased on the most recently reclaimed sites (Figure 2B) with common colonizing species including red maple, sourwood (Oxydendron arboreum), and tulip poplar (Liriodendron tulipifera). Interestingly, the number of woody species on the oldest reclaimed sites remained well below the hardwood sites and did not increase (Figure 2B), raising the question of how long it will take before the full suite of tree species is established.

Overall species composition
A total of 102 native species naturally colonized reclaimed mine sites, indicating that reclaimed mines host a wide diversity of plant species. A full species listing will be made available in the internet version of this publication. Most (75%) of the native tree and shrub species and 65% of the native herbaceous species found in surveys of forest sites were also found on reclaimed mined sites (Tables 1 and 2). Moreover, a large number of herbaceous species, primarily early-successional, were found on reclaimed mine sites but not in the forest. While most common forest species were present on the reclaimed sites, some species, such as the herbs trilium (Trilium grandiflorum), wintergreen (Gaultheria procumbens), and bellwort (Uvularia pudica), and the trees Frasier's magnolia (Magnolia frasieri) and serviceberry (Amelanchier arborea) were not found on any of the reclaimed mines. These species may or may not establish themselves eventually on the mined sites, depending on the extent to which soil properties may have been altered by the mining and reclamation practices.

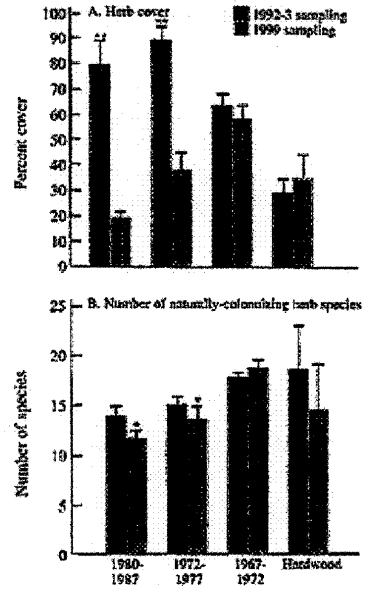


Figure 1. Average herbaceous cover and number of naturally-colonizing herb species.
Error bars = 1 SE. *=p<0.05, **=p<0.01 for comparisons between years.

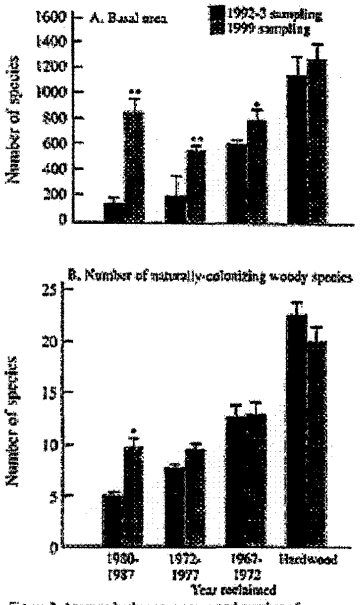


Figure 2. Average herbaceous cover and number of naturally-colonizing tree and shrub species. Error bars ± 1 SE. *sp<0.05, **sp<0.01 for comparisons between years.

Table 1. -Common species observed on reclaimed and forest sites.

Species/Species Type	Type of Reclamation			
	1980-87	1972-77	1967-72	Forest
Planted				
K-31	X	X		
Sericea lespedeza	X	X		
Red top			X	
Orchard grass	X			
Clover	X	X	X	
Birdsfoot trefoil	X			
Black locust	X	X		
White pine	X			
Understory Herbs				
Goldenrod	X	X	X	X
Heart-leaved aster	X		X	X
Frost aster	X	X	X	
Violets	X	X	X	X
Avens			X	X
Jewel weed		X	X	
Christmas fern	X	X	X	X
Five-fingers	X	X	X	X
Eupatorium	X	X	X	X
Virgin's bower	X	X	X	X
Beggar's tick				X
Understory shrubs				
Laurel	X			X
Blackberry	X	X	X	X
Hydrangea			X	X
Virginia creeper	X	X	X	X
Rhododendron				X
Wild grape	X	X	X	X
Sassafras	X	X	X	X
Dogwood		X	X	X
Overstory				
Chestnut oak				x
Red oak		X	X	X
Wild cherry	X	X	X	X
Tulip poplar	X	X	X	X
Sweet birch	X	X	X	X
Sourwood	X	X	X	X
Hickory		X	X	X
Red maple	X	X	X	X

Table 2. -Number of native, unplanted, herbaceous and woody (shrub and tree) species found only on reclaimed sites, forest sites, or both in surveys by Holl (2000) in summer 1992/1993 and 1999.

	Number of native, unplanted species	
Sites where found	**Herbaceous**	**Woody**
Reclaimed only	39	5
Forest only	17	9
Reclaimed and forest	31	27
Total	**87**	**41**

Reclamation Practices to Encourage Recovery of Native Forested Ecosystems
The study discussed above is one of a few recent studies documenting long-term forest recovery on reclaimed mine sites in the southeastern United States (Thompson and others 1984; Wade and Thompson 1993; Wade and Tritton 1997; Rodrigue and Burger 2000). These studies clearly show that older reclaimed mine sites host a large percentage of the plant species found in the surrounding forest, and may even host some rare species (Wade and Thompson 1993). Together, these studies show that choice of species used for reclamation appears to influence the plant species naturally colonizing reclaimed mines, as well as the rate at which those species colonize. These results suggest practices that will encourage native forest recovery on reclaimed coal surface mines.

The following procedures are based on the study reviewed above, other research conducted by Virginia Tech researchers sponsored by Powell River Project, and related scientific literature. These procedures can be used to aid rapid re-establishment of forest ecosystems on reclaimed mine areas that are similar in character to native hardwood forests, where such re-establishment is consistent with the post-mining land use objective.

1. Establish a Soil Medium that is Suitable for Forest Species.

In order for mine reforestation to be successful, it is essential that the surface material have chemical and physical properties that are suitable for forest species, that surface materials have sufficient depth for rooting of forest species (at least 4 feet is recommended), and that the material be placed on the surface without excessive compaction by mining machinery such as dozers and haulers.

Prior Powell River Project publications describe these procedures in detail. VCE Publication 460-121 (Daniels and Zipper 1997) reviews general processes and procedures of soil reconstruction. VCE publication 460-123 (Burger and Torbert 1993) provides guidelines for mine reforestation, including soil reconstruction. VCE publication 460-136 (Torbert and others 1996) provides further detail on spoil selection and placement for mine reforestation.

2. Provide Seed Sources for Recolonization by Forest Species.

Given that most species found in the native hardwood forests are not used typically in reclamation plantings, seed dispersal is essential to re-establishment of native hardwood forest plant communities. The majority of the species observed on the older mine sites were not planted by the mining operators, which leads to the conclusion that seeds of many plant species will disperse effectively on reclaimed mines if seed sources are accessible. Mechanisms for seed dispersal include wind, animals, and soil redistribution by the mining process.

Generally speaking, maintenance of native forest close to the reclamation area will encourage recolonization by forest species. On portions of large-area permits that are far-removed from forested areas, plant species that rely on wind or animals for dispersal may not colonize as readily. When possible, retaining native forest to serve as seed sources adjacent to the mining areas, or even as remnants within the mining area where the mining plan allows, will encourage more rapid recolonization. On some re-mining sites, areas enclosed by the permit cannot be mined due to the extent of previous mining; leaving such areas in forest cover with minimal disturbance will encourage recolonization of the mined areas by forest species.

Forest soils harbor many seeds. Use of salvaged soil from the surface of forested areas in reclamation will encourage re-establishment of the forest species. In cases where a nearby area of forest is about to be mined, the soil seed bank might be spread on areas that are in the process of being reclaimed. Wade (1994) found that spreading topsoil from nearby forests on reclaimed mines introduced a large number of species, including 5 tree species, 7 shrubs, 14 grasses, and 53 forbs. In cases where complete topsoil replacement is impractical, use of some topsoil in the reclamation area will provide some seed sources, and more rapid recolonization by forest species than will no re-use of surface soil at all. Whenever possible, topsoil should be moved directly from the mining area to the reclamation area. Topsoil storage prior to respreading will cause seeds to lose viability. The longer the storage period, the greater the loss of seed viability that should be expected.

3. Use Less-Competitive Ground Cover Species

The main reclamation concern of mine operators is meeting SMCRA standards. SMCRA requires operators to plant vegetation that will minimize erosion, and return the land to a productive use. But aggressive grasses and legumes slow or prevent establishment of a number of overstory and understory species characteristic of the native Appalachian hardwood forest. Moreover, extensive research by Burger and Torbert (reviewed in VCE Publication 460-123) shows that certain ground cover species, such as Kentucky-31 tall fescue, sericea lespedeza, and red, white, and sweet clover (Trifolium spp.), hinder establishment of planted seedlings; general observation indicates that these species discourage invasion by woody species "volunteers" from the surrounding forest, as well. It may be that as these ground cover species die back over time more species will

colonize these sites, but Holl1/4s research demonstrates that planted grasses often provide dense cover for 15 years or more.

Research by Burger and colleagues has demonstrated that less-competitive groundcovers, such as the annual grasses foxtail millet (Setaria italica) and annual rye (Secale cereale), the perennial grasses perennial ryegrass (Lolium perenne) and redtop (Agrostis gigantea), and the legume species kobe lespedeza (Lespedeza striata var. Kobe) and birdsfoot trefoil (Lotus corniculatus) do control erosion effectively, after the first year. The oldest reclaimed sites surveyed, where there is no evidence of having been seeded in sericea lespedeza, hosted the most diverse forest species assemblages. This result suggests that planting with less aggressive species will allow a more rapid recovery of the native ecosystem than what has been observed on sites where reclamation plantings are dominated with aggressive ground cover species. Also, ground cover seeding and nitrogen fertilization rates should be kept low to allow for the colonization of other plant species.

Very little research has been conducted on the capability of groundcover species other than common forages to establish successfully and control erosion on reclaimed mine sites, or on the effect of such species on the rate of forest ecosystem reestablishment. Preliminary research suggests, for example, that some annual wildflower species such as black-eyed Susan (Rudbeckia hirta), cornflower (Centaurea cyanus), and lance-leaved coreopsis (Coreopsis lanceolata) establish when seeded on disturbed sites (Heckman and others 1995). Research on the use of native grasses on disturbed roadsides shows that such species can be established on highway cuts with surface characteristics similar to surface mines, but the timing of seed application and weather conditions during establishment influence seeding success, and erosion control during establishment is a concern (Booze-Daniels and others 1999).

4. Plant a variety of woody species.

In recent years, many mined acres replanted for forest post-mining land use in southwestern Virginia have been planted with a near monoculture of eastern white pine. White pine is widely planted because it is well adapted to acidic soils and grows quickly to meet the 5-year bond release requirement. The rapid biomass accumulation is compatible with timber production as a post-mining land use objective, where markets for white pine are present. However, Holl's research demonstrated that the understory of dense white-pine plantings have very low species diversity, relative to native Appalachian hardwood forests. Herbaceous ground cover in sites planted densely with white pine dropped from 80 to 20 percent over the 1993 - 1999 period as the trees matured.

There is increasing interest in diversifying planted trees because of the commercial value of hardwoods. Such diversification will have beneficial effects on wildlife communities by providing a greater variety of canopy architecture and food sources (Raifall and Vogel 1978; Fowler and Turner 1981) and allowing for establishment of native herbaceous species. For example, bird diversity on reclaimed mines has been shown to be strongly

related to the structural diversity of vegetation (Karr 1968). A number of hardwood tree species that are commercially viable can be used successfully in mine reclamation (Rodrigue and Burger 2000; Torbert and Burger 2000). Although these species may grow more slowly than eastern white pine, they can be expected to provide significant income over the long-term because of the higher value of their wood (Burger and others 1998). A large number of tree species, including many species of oak, pine, and maple, as well as alder, dogwood, and walnut, are available from the Virginia Department of Forestry. Good, reputable tree planters who are familiar with planting hardwoods in viable silvicultural mixtures should be used to help ensure reforestation success.

Conclusion

Under SMCRA, current reclamation practices address short-term concerns required by law, including erosion control, acid mine drainage control where acidic strata are present, and post-mining land use establishment. Maximizing long-term ecological and economic value on these sites requires balancing short- and long-term needs. Research shows that reclaimed mines are capable of supporting forest ecosystems with levels of plant diversity that approach those of natural forests. The research reviewed above showed plant communities on mine sites reclaimed within the past 30 years developed into ecosystems that resemble the native hardwood forests. Although all species in surrounding forests were not found on the mined sites, the reclaimed-mine forests are still very young relative to the native hardwood forests which had developed over much longer time periods.

Research has shown that reclamation practices have a dramatic influence on the rate of forested ecosystem recovery on unmanaged reclaimed mine sites, and on their long-term productivity and economic value. Practices that encourage ecosystem recovery are compatible with and complementary to those that may be used to establish commercially viable, productive hardwood forests on reclaimed mine sites.

Acknowledgments

This project was supported by funds from the Powell River Project and the University of California, Santa Cruz. Jonathan Beals-Nesmith and Vanessa Mulkey assisted with field research. This and other Powell River Project publications are available on the internet through the Virginia Cooperative Extension web site http://www.ext.vt.edu/resources/, or through the Powell River Project web site http://als. cses.vt.edu/PRP/.

References

Booze-Daniels, J.; R.E. Schmidt, and D.R. Chalmers. 1999. Evaluation and management of turfgrass on Virginia roadsides: Annual report to Virginia Department of Transportation. Department of Crop and Soil Environmental Sciences, Virginia Tech.

Brenner, F. J., R. B. Kelly, and J. Kelly. 1982. Mammalian community characteristics on surface mine lands in Pennsylvania. Environmental Management 6: 241-249.

Brenner, F. J., M. Werner, and J. Pike. 1984. Ecosystem development and natural succession in surface coal mine reclamation. Minerals and the Environment 6: 10-22.

Burger, J.A., D.L. Kelting, and C.E. Zipper. 1998. Maximizing the value of forests on reclaimed mined land. Virginia Cooperative Extension Publication 460-138. http://www.ext.vt.edu/pubs/ mines/460-138/460-138.html

Burger, J. A. and J. L. Torbert. 1992. Restoring forest on surface-mined land. Virginia Cooperative Extension Publication 460-123. http://www.ext.vt.edu/pubs/mines/460-123/460-123.html

Daniels, W.L., and C.E. Zipper. 1997. Creation and management of productive minesoils. Virginia Cooperative Extension Publication 460-121. http://www.ext.vt.edu/pubs/mines/460-121/460-121.html

Fowler, D. K. and L. J. Turner. 1981. Surface Mine Reclamation for Wildlife: a model reclamation plan for Southern Appalachia. Fish and Wildlife Service/OBS-81/09. U.S. Dept. of the Interior.

Holl, K. D. and J. Cairns, Jr. 1994. Vegetational community development on reclaimed coal surface mines in Virginia. Bulletin of the Torrey Botanical Club 121: 327-337.

Holl, K. D. 2000. The effect of coal surface mine revegetation practices on long-term vegetation recovery. Pages 56-61 in 2000 Powell River Project Research and Education Program Reports. Virginia Polytechnic Institute and State University.

Karr, J. R. 1968. Habitat and avian diversity on strip-mined land in east-central Illinois. Condor 70:348-357.

Raifall, B. L. and. W. G. Vogel. 1978. A Guide for Vegetating Surface-mined Land for Wildlife in Eastern Kentucky and West Virginia. Fish and Wildlife Service/OBS-78/84. U.S. Dept. of the Interior.

Rodrigue, J. A. and J. A. Burger. 2000. Forest productivity and woody species diversity on pre-SMCRA mined land. Pages 35-55 in 2000 Powell River Project Research and Education Program Reports.

Thompson, R. L., W. G. Vogel, and D. D. Taylor. 1984. Vegetation and flora of a coal surface-mined area in Laurel County, Kentucky. Castanea 49: 111-126.

Torbert, J.L., and J.A. Burger. 2000. Forest land reclamation. p. 371-399, in: R. Barnhisle, W. Daniels, and R. Darmody (eds). Reclamation of Drastically Disturbed Lands. American Society of Agronomy Monograph 41. 1082 p.

Torbert, J.L., J.A. Burger, and J.E. Johnson. 1996. Commercial forestry as a post-mining land use. Virginia Cooperative Extension Publication 460-136. http://www.ext.vt.edu/pubs/mines/460-136/460-136.html

Wade, G. L. and R. L. Thompson. 1993. Species richness on five partially reclaimed Kentucky surface mines. Paper presented at American Society for Surface Mining and Reclamation 307-314.

Wade, G. L. 1994. Grass competition and establishment of native species from forest soil seed banks. Landscape and Urban Planning 17:135-149.

Wade, G. L. and L. M. Tritton. 1997. Evaluating biodiversity of mineral lands. Paper presented at National Meeting of the American Society for Surface Mining and Reclamation 336-343.

This is a pre-print draft subject to further editing and review. The final version will include photo credits, a Table of Contents, and complete appendices.

www.PartnersInFlight.org

Published by

CORNELL LAB *of* ORNITHOLOGY

Signed and approved by:

US - chair of PIF Council
Canada – Partners in Flight Canada National Working Group
Mexico - NABCI Committee

Front Cover: Painted Bunting © Tom Vezo
Back Cover: Mountain Bluebird © Marie Read
Design by Julie Hart
Printing by Cayuga Press of Ithaca Inc., Ithaca, NY

Recommended Citation:
Rich, T. D., C. J. Beardmore, H. Berlanga, P. J. Blancher, M. S. W. Bradstreet, G. S. Butcher, D. Demarest, E. H. Dunn, W. C. Hunter, E. Iñigo-Elias, J. A. Kennedy, A. Martell, A. Panjabi, D. N. Pashley, K. V. Rosenberg, C. Rustay, S. Wendt and T. Will. 2003. Partners in Flight North American Landbird Conservation Plan. Cornell Lab of Ornithololgy. Ithaca, NY.

-DRAFT-

Partners In Flight
North American Landbird Conservation Plan

September 2003

Authors

Terrell D. Rich • U.S. Fish and Wildlife Service
Carol J. Beardmore • U.S. Fish and Wildlife Service
Humberto Berlanga • Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (National Commission for the Conservation and Use of Biodiversity)
Peter J. Blancher • Bird Studies Canada
Michael S. W. Bradstreet • Bird Studies Canada
Greg S. Butcher • National Audubon Society
Dean Demarest • U.S. Fish and Wildlife Service
Erica H. Dunn, • Canadian Wildlife Service
W. Chuck Hunter • U.S. Fish and Wildlife Service
Eduardo Iñigo-Elias • Cornell Laboratory of Ornithology
Judith A. Kennedy • Canadian Wildlife Service
Art Martell • NABCI-Canada
Arvind Panjabi • Rocky Mountain Bird Observatory
David N. Pashley • American Bird Conservancy
Kenneth V. Rosenberg • Cornell Laboratory of Ornithology
Christopher Rustay • Playa Lakes Joint Venture
Steve Wendt • Canadian Wildlife Service
Tom Will • U.S. Fish and Wildlife Service

Part 1: The Continental Plan

INTRODUCTION

Development of Partners in Flight

Birds are perhaps the most highly valued and actively appreciated component of North America's biological diversity. Approximately 1,200 species, representing nearly 15% of the world's known bird species, inhabit Canada, the United States, and Mexico. Approximately two-thirds of these, including warblers, thrushes, sparrows, finches, hummingbirds, flycatchers, raptors and other groups, occupy principally terrestrial habitats. These "landbirds" are the focus of this document.

Landbirds are an important component of the economy, providing untold billions in dollars of ecosystem services each year. Through their consumption of pest insects, pollination of plants, dispersal of native seeds, and other services, birds contribute to the maintenance of ecosystems that also support human life. Nature-based recreation, a high proportion of which involves observing birds, is the fastest growing segment of the tourism industry, increasing approximately 30% annually since 1987. In 1996 in the U.S. alone, 160 million people (77% of the population) spent $29.2 billion to observe, photograph or feed wildlife.

While birds are valuable to humans in many ways, declines in numerous landbird populations are creating serious concern for their futures. Some species are in sufficient trouble to merit immediate conservation action. Others remain widespread but deserve attention to prevent continued decreases. Because landbird habitats are directly affected by human use of the land, the health of all North American species is in our hands. We therefore have a stewardship responsibility for maintaining healthy populations of still-common species and not simply for preventing extinctions. We must never forget that by far the most abundant bird in North America—the Passenger Pigeon—was driven to extinction from a population size of 3-5 billion in fewer than 100 years (Blockstein 2002).

The causes of population declines in birds are numerous, but the loss, modification, degradation, and fragmentation of habitat almost always play a major role. Threats to habitats come primarily from uncontrolled urban and suburban development and from intensified land-use practices in agricultural and forested regions. Birds are a vital element of every terrestrial habitat in North America. Conserving habitat for birds will therefore contribute to meeting the needs of other wildlife and entire ecosystems.

Recognition that a cooperative, non-adversarial conservation approach was required to address bird and habitat issues at a continental scale led to formation in 1990 of Partners in Flight/Compañeros en Vuelo/Partenaires d'Envol. This voluntary, non-advocacy, international coalition was originally dedicated to reversing declines of Neotropical migratory songbirds, but soon expanded its mission to include all landbirds. Partners include federal, state, provincial and territorial government agencies, non-governmental organizations, numerous universities, concerned individuals, and private industry in Canada, the U.S., Mexico and beyond.

The Partners in Flight mission is expressed through three related concepts:

- *Helping species at risk.* Species exhibiting warning signs today must be conserved before they become imperiled. Allowing species to become threatened or endangered results in long-term and costly recovery efforts whose success often is not guaranteed. Species that have attained endangered or threatened status must not only be protected from extinction, but must be recovered.
- *Keeping common birds common.* Native birds, both resident and migratory, must be retained in healthy numbers throughout their natural ranges. We have a responsibility to be good stewards of species that represent the integrity of North America's diverse and unique ecosystems.
- *Voluntary partnerships for birds, habitats and people.* A central premise of PIF is that the resources of public and private organizations throughout the Americas must be combined, coordinated, and increased in order to achieve success in conserving bird populations in this hemisphere. The power of PIF lies in the synergy that builds when diverse, committed partners who care about birds work together for a common goal.

Each spring, throngs of bird watchers flock to High Island, Texas to observe the songbird migration. During 2001, in the U.S. alone, 66.1 million people (31 percent of the U.S. population) participated in wildlife-watching activities, spending $38.4 billion.

Purpose and Scope of this Plan

Purpose

This Plan provides a continental perspective on North American landbird conservation, presenting geographic, species, and habitat priorities. An international approach is essential because most species breed, migrate, and winter in more than one country, such that Canada, the U.S. and Mexico share many of the same birds at different times of year. Migratory birds are an international resource that requires conservation planning at a continental scale - a different approach than what may be suitable for more sedentary wildlife.

Our audience includes decision-makers, land-managers and scientists at national and international levels, who collectively have the ability to meet PIF's ambitious goals for landbirds.

Based on a comprehensive continental assessment of 448 native landbird species, we establish population objectives and recommended actions for Species of Continental Importance. These objectives and recommendations will facilitate the integration of landbird conservation actions with those described in other continental- and national-scale plans for birds. These include the North American Waterfowl Management Plan (North American Waterfowl Management Plan Committee 1998), Canadian and U.S. *Shorebird Conservation Plans* (Donaldson et al. 2000, Brown et al. 2001), and Waterbird Conservation for the Americas (Kushlan et al. 2002).

We consider two types of landbirds to be of high conservation importance—those that show some combination of population declines, small ranges, or distinct threats to habitat, and those that are restricted to a major habitat type, but otherwise not at risk. This rationale forms the basis for grouping species into those warranting attention due to concern (i.e., the PIF Watch List), and those that should be recognized as stewardship responsibilities.

Although this Plan identifies Species of Continental Importance, we do not advocate species-based conservation as the only, or best, approach to addressing issues. That approach is required in some cases, particularly in protecting endangered species. However, we encourage planners to identify common issues or habitats among suites of high priority species. This enables a more practical approach for implementing conservation actions, which will simultaneously benefit many bird species and other organisms as well.

This Plan is not intended to replace existing or developing regional and state PIF plans. The required conservation and management strategies for several hundred landbird species are far too complex and

What the PIF North American Landbird Conservation Plan does:

- Summarizes the conservation status of landbirds across North America, illustrating broad patterns based on a comprehensive, biologically-based species assessment.
- Identifies species most in need of attention at the continental scale, recognizing that additional species will need attention in each region.
- Emphasizes the important need for stewardship of biome-restricted species that may not otherwise be in need of immediate conservation attention.
- Promotes conservation throughout birds' seasonal cycles, and in all regions of North America—not just during breeding periods or where species at risk occur.
- Presents continental-scale population objectives for species identified as continentally important and identifies general actions necessary to meet those objectives.
- Demonstrates the need for greater resources for landbird conservation.
- Outlines ways in which continental scale issues and objectives relate to regional conservation efforts.
- Promotes a coordinated approach to landbird conservation among nations and regions of North America, which will serve as a stepping stone to even broader geographic cooperation in future.

variable across North America to be treated only at a continental scale. Implementation of on-the-ground bird conservation strategies must take place at state, provincial, and local levels, guided by regional and continental planning. Over the last seven years, PIF has engaged in a comprehensive planning effort, resulting in several dozen regional bird conservation plans covering all states or physiographic areas in the U.S. (Pashley et al. 2000, www.PartnersInFlight.org). Similar regional efforts are underway in Canada and Mexico. These regional and state PIF plans (Appendix C) identify priority species and habitats, set goals and objectives, discuss local issues and opportunities, and outline strategies for local or regional partners to implement bird conservation objectives.
Part II of this Plan summarizes the salient issues faced by North American landbirds, reflecting the recurring messages of the regional plans.

Scope

Geographic

For the purposes of this document, "North America" includes Canada, the continental U.S., and Mexico. However, this version of the Plan is limited to landbirds that regularly breed in the continental U.S. and Canada. Nonetheless, Mexican scientists provided important ideas and strategies for this plan as well as considerable data on the status in Mexico of many species included here.

Under the guidance of the Mexican National NABCI Committee, a working group was established in 2002 to develop the species assessment process for all bird species present in that country (approximately 1,100 species). Mexico is following the PIF methodology, and the first conservation status assessment for all Mexican species is expected by the end of 2003. Thus, we are preparing for a smooth integration of about 450 Mexican landbird species in future iterations of this Plan. Species assessment also has taken place for portions of the Caribbean, and partners are coordinating bird

The PIF Continental Plan considers 448 landbird species native to the United States and Canada from the following 45 families. Colored text shows additional familes with landbirds native to Mexico that will be treated in future versions of the Plan.

Family	Taxa	Family	Taxa
Tinamidae	Tinamous	Pipridae	Manakins
Cathartidae	Vultures	Laniidae	Shrikes
Accipitridae	Hawks, Eagles & allies	Vireonidae	Vireos & Greenlets
Falconidae	Falcons & Caracaras	Corvidae	Jays, Crows & allies
Cracidae	Chachalacas & allies	Alaudidae	Horned Lark
Phasianidae	Pheasants, Grouse, Turkeys	Hirundinidae	Swallows
Odontophoridae	Quail & allies	Paridae	Chickadees & Titmice
Columbidae	Doves & Pigeons	Remizidae	Verdin
Psittacidae	Parrots & Parakeets	Aegithalidae	Bushtit
Cuculidae	Cuckoos & Anis	Sittidae	Nuthatches
Tytonidae	Barn Owls	Certhiidae	Brown Creeper
Strigidae	True Owls	Troglodytidae	Wrens
Caprimulgidae	Nightjars	Cinclidae	American Dipper
Nyctibiidae	Potoos	Regulidae	Kinglets
Apodidae	Swifts	Sylviidae	Arctic Warbler, Gnatcatchers & allies
Trochilidae	Hummingbirds	Turdidae	Thrushes
Trogonidae	Trogons & Quetzals	Timaliidae	Wrentit
Momotidae	Motmots	Mimidae	Mockingbirds, Thrashers & Catbirds
Alcedinidae	Kingfishers	Motacillidae	Wagtails & Pipits
Bucconidae	Puffbirds	Bombycillidae	Waxwings
Galbulidae	Jacamars	Ptilogonatidae	Silky Flycatchers
Ramphastidae	Barbets & Toucans	Peucedramidae	Olive Warbler
Picidae	Woodpeckers & allies	Parulidae	Wood Warblers
Furnariidae	Spinetails, Leaftossers & allies	Coerebidae	Bananaquit
Dendrocolaptidae	Woodcreepers	Thraupidae	Tanagers, Euphonias & allies
Thamnophilidae	Antshrikes, Antwrens, Antbirds & allies	Emberizidae	Towhees, Sparrows, Seedeaters & allies
Formicariidae	Antthrushes & Antpittas	Cardinalidae	Saltators, Grosbeaks, Buntings & allies
Tyrannidae	Flycatchers, Becards, & Tityras	Icteridae	Blackbirds, Orioles & allies
Cotingidae	Cotingas	Fringillidae	Finches

Appendix A. Assessment scores and estimated population size of North American landbirds - continued

Common Name	Scientific Name	PS	BD	LD	TD	TN	PT	Combined Score	Est. Size of Population	% Population in U.S. & Canada	Monitoring Need
Palm Warbler	*Dendroica palmarum*	2	2	3	2	2	1	8	23,000,000	100%	Mo3
Bay-breasted Warbler	*Dendroica castanea*	3	3	4	3	3	4	14	3,100,000	100%	Mo3
Blackpoll Warbler	*Dendroica striata*	2	2	4	3	2	3	12	21,000,000	100%	Mo3
Cerulean Warbler	*Dendroica cerulea*	3	4	4	4	4	5	16	980,000	100%	
Black-and-white Warbler	*Mniotilta varia*	2	2	2	2	2	3	9	14,000,000	100%	
American Redstart	*Setophaga ruticilla*	2	1	2	2	2	2	8	25,000,000	100%	Mo3
Prothonotary Warbler	*Protonotaria citrea*	3	3	4	3	4	4	15	1,800,000	100%	
Worm-eating Warbler	*Helmitheros vermivorus*	3	3	4	3	4	3	14	750,000	100%	
Swainson's Warbler	*Limnothlypis swainsonii*	4	4	5	4	4	1	14	88,000	100%	
Ovenbird	*Seiurus aurocapillus*	2	2	3	2	3	2	10	34,000,000	100%	
Northern Waterthrush	*Seiurus noveboracensis*	2	1	2	2	2	3	9	13,000,000	100%	Mo3
Louisiana Waterthrush	*Seiurus motacilla*	4	2	3	3	4	2	13	280,000	100%	
Kentucky Warbler	*Oporornis formosus*	3	3	4	3	3	4	14	1,100,000	100%	
Connecticut Warbler	*Oporornis agilis*	3	3	3	3	2	4	13	1,200,000	100%	Mo3
Mourning Warbler	*Oporornis philadelphia*	2	3	3	2	2	4	11	7,000,000	100%	Mo3
MacGillivray's Warbler	*Oporornis tolmiei*	2	3	3	2	2	3	10	5,400,000	99%	
Common Yellowthroat	*Geothlypis trichas*	2	1	2	2	2	2	8	32,000,000	100%	
Hooded Warbler	*Wilsonia citrina*	3	2	4	3	3	3	13	4,000,000	100%	
Wilson's Warbler	*Wilsonia pusilla*	2	1	3	3	2	4	12	36,000,000	100%	Mo3
Canada Warbler	*Wilsonia canadensis*	3	2	3	3	4	4	14	1,400,000	100%	Mo3
Red-faced Warbler	*Cardellina rubrifrons*	4	5	5	3	3	3	15	430,000	25%	Mo1
Painted Redstart	*Myioborus pictus*	3	3	4	3	3	3	13	0.5 - 5,000,000	< 5%	Mo1
Rufous-capped Warbler	*Basileuterus rufifrons*	3	3	3	2	2	3	11	0.5 - 5,000,000	< 1%	Mo1
Yellow-breasted Chat	*Icteria virens*	2	1	3	3	2	2	10	12,000,000	67%	
Hepatic Tanager	*Piranga flava*	4	1	1	3	3	2	10	300,000	25%	
Summer Tanager	*Piranga rubra*	3	2	2	3	2	3	10	4,100,000	80%	
Scarlet Tanager	*Piranga olivacea*	3	2	4	2	3	2	12	2,200,000	100%	
Western Tanager	*Piranga ludoviciana*	2	2	3	2	2	2	9	8,900,000	99%	
Flame-colored Tanager	*Piranga bidentata*	3	4	4	3	3	3	13	0.5 - 5,000,000	< 1%	Mo1
White-collared Seedeater	*Sporophila torqueola*	2	3	3	2	1	3	10	5 - 50,000,000	< 1%	Mo1
Olive Sparrow	*Arremonops rufivirgatus*	3	4	4	3	3	2	12	2,100,000	10%	Mo2
Green-tailed Towhee	*Pipilo chlorurus*	3	3	3	3	2	3	12	4,100,000	100%	
Spotted Towhee	*Pipilo maculatus*	2	2	2	3	2	2	8	14,000,000	90%	
Eastern Towhee	*Pipilo erythrophthalmus*	2	2	2	3	2	4	11	11,000,000	100%	
California Towhee	*Pipilo crissalis*	3	4	4	2	2	3	12	4,700,000	50%	
Canyon Towhee	*Pipilo fuscus*	2	3	3	2	2	2	9	6,500,000	25%	
Abert's Towhee	*Pipilo aberti*	4	5	5	3	3	3	15	230,000	90%	
Bachman's Sparrow	*Aimophila aestivalis*	4	4	4	4	4	5	17	250,000	100%	
Botterl's Sparrow	*Aimophila botterii*	3	4	4	3	2	3	13	0.5 - 5,000,000	< 5%	Mo1
Cassin's Sparrow	*Aimophila cassinii*	2	3	4	3	3	4	13	20,000,000	50%	
Rufous-winged Sparrow	*Aimophila carpalis*	4	5	5	3	3	3	15	74,000	12%	Mo1
Rufous-crowned Sparrow	*Aimophila ruficeps*	3	3	3	2	1	4	12	2,400,000	50%	
Five-striped Sparrow	*Aimophila quinquestriata*	4	5	5	3	3	4	16	50 - 500,000	< 1%	Mo1
American Tree Sparrow	*Spizella arborea*	2	2	2	2	2	4	10	26,000,000	100%	Mo3
Chipping Sparrow	*Spizella passerina*	1	1	2	1	2	2	7	99,000,000	50%	
Clay-colored Sparrow	*Spizella pallida*	2	2	3	2	2	4	11	23,000,000	100%	Mo3
Brewer's Sparrow	*Spizella breweri*	2	3	3	3	2	5	13	16,000,000	100%	
Field Sparrow	*Spizella pusilla*	2	2	2	3	2	5	12	8,200,000	100%	
Black-chinned Sparrow	*Spizella atrogularis*	4	3	4	3	3	4	15	390,000	80%	
Vesper Sparrow	*Pooecetes gramineus*	2	1	2	3	2	4	11	30,000,000	100%	
Lark Sparrow	*Chondestes grammacus*	2	1	3	2	2	5	12	8,900,000	89%	
Black-throated Sparrow	*Amphispiza bilineata*	2	3	3	2	2	5	12	27,000,000	50%	
Sage Sparrow	*Amphispiza belli*	3	3	4	4	3	2	13	4,300,000	90%	
Lark Bunting	*Calamospiza melanocorys*	2	3	3	3	3	4	12	27,000,000	100%	

APPENDIX B. METHODS USED TO ESTIMATE POPULATION SIZES AND PERCENTS

Estimates of global population size were needed for each species of landbird covered by this Plan for several reasons:

- To score the Population Size factor (PS) in our species assessment. For this purpose, we needed order of magnitude resolution on population sizes, using to the extent possible a single methodology to give comparable estimates across all species;
- To provide estimates of "current" population size for each landbird species. This gives an impression of the size of the landbird resource, and more importantly it emphasizes the magnitude of the task of attaining listed population objectives;
- To provide a starting point for estimating population sizes in each Bird Conservation Region, and an understanding of the magnitude of attaining objectives regionally. We emphasize that additional work to check and refine estimates in each region is highly desirable, because additional population data may be available, different analytical methods may provide more precision at the regional scale, and because assumptions applied at the continental level may need to be revisited within each region.

Population size estimates for the U.S. and Canada south of the arctic:

We used Breeding Bird Survey (BBS) data from the 1990s as the basis for population estimates across the U.S. and across Canada south of the arctic (i.e., excluding Bird Conservation Region [BCR] 3, see next section). BBS-based estimates of abundance were calculated according to the following steps:

1) For each BBS route run within acceptable weather conditions, counts were averaged across years to give a single average count for the 1990s for each species recorded on each route.
2) In the boreal forest portions of Canada, where BBS routes are widely scattered, routes not run during the 1990s were added to augment geographical coverage, using data from other decades for these routes (boreal routes that were run during the 1990s still provided the bulk of boreal count data, and species counts from those routes were restricted to the 1990s).
3) Species counts were averaged across all BBS routes in each geo-political polygon defined by the intersection of a BCR and a province/state/territory – for example, separate averages were calculated for each of the three U.S. states and three Canadian provinces that together comprise the Boreal Hardwood Transition (BCR 12).
4) Where a geo-political polygon was not sampled by BBS routes, we assigned averages from adjacent polygon(s) in the same BCR. In the U.S., unsampled polygons were typically smaller than 1,000 km2, so this procedure had minimal effect on continental population estimates. In boreal Canada, unsampled polygons were sometimes large (exceeding 100,000 km2 in two instances) so that population estimates for boreal BCRs are less likely to be representative of the whole region.
5) Indices of abundance were calculated for each geo-political polygon by multiplying average counts per BBS route (from step 4) times area of the geo-political polygon, and dividing by the theoretical area covered by a BBS route (25.1 km2, assuming 400-m radius around each of the 50 count circles). For example, the index of abundance for Wood Thrushes in the Ontario portion of BCR 12 equals 2.33 birds/route (55 routes sampled in 1990s) x 202,860 km2 (area of Ontario in BCR 12) / 25.1 km2 (area per BBS route) equals approximately 19,000.
6) BCR-wide indices of abundance were calculated by simple addition across all polygons making up each BCR, thus giving a population index for Wood Thrushes in all of BCR 12 of approximately 40,000. State and province-wide indices of abundance can be calculated in the same manner.
7) BCR-wide population indices were converted to population estimates by applying three correction factors (see Rosenberg and Blancher, in press, for more detail on these correction factors):

Pair correction: Indices were multiplied by two on the assumption that typically a single member of a breeding pair is observed during BBS tallies;

Detection area correction: Most species are not detected out to the full 400m BBS count circle. Each species was placed into one of five detection distance categories, based on presumed effective detection during 3-minute BBS counts: 80m, 125m, 200m, 400m and 800m. Because area of detection increases as the square of detection distance, the detection area correction is then simply the square of the ratio between 400m (theoretical BBS count circle) and species-specific effective distance. For example for Wood Thrush, placed in the 200m class, the population index is multiplied by a detection area correction of 4 (square of 400/200). Note that effective detection distances are intended to incorporate not only the distance at which a species is normally heard and seen, but also the radius of its movement during a 3-min count period – this is why some wide-ranging species have been assigned an 800-m detection distance despite being counted within a 400-m BBS circle.

Time of day correction: Almost all species show a temporal change in detection across the 50 BBS stops, some declining from a dawn chorus, others peaking after sunrise or later in the morning. A time of day correction is applied to the population index to adjust counts to the maximum time of detection. This adjusts for birds not detected at other times of the morning. The correction factor is the ratio of counts at the peak of detection (calculated using a polynomial curve fit to smooth out stop-by-stop variance) relative to the average count over whole BBS routes. Time of day correction factors were calculated from survey-wide BBS stop-by-stop data. For Wood Thrush, whose detectability declines from a peak at BBS stop 1, the time of day correction is 2.30.

For Wood Thrushes, the population estimate for BCR 12 = 40,000 (index from step 6) x 2 (pair correction) x 4 (detection area correction) x 2.30 (time of day correction) = approximately 740,000 breeding individuals.

Population size estimates for arctic Canada (BCR 3):

In the absence of BBS data, we used a combination of Breeding Bird Census (BBC) density estimates (Kennedy et al. 1999) and relative abundance data from the Northwest Territories / Nunavut Bird Checklist Survey <http://www.mb.ec.gc.ca/nature/migratorybirds/nwtbcs/index.en.html> to estimate population size of landbirds in the arctic (BCR 3) portion of Canada, as follows:

1) Total landbird density was calculated from BBC data for each of three terrestrial ecozones that make up BCR 3 in Canada (Arctic Cordillera, Northern Arctic and Southern Arctic).
2) Total landbird density was split among three classes of landbirds – those likely to be detected at long distances (raptors, ravens), those at intermediate distances (birds of open country) and the rest (birds of woods and scrub).
3) Relative abundance of each landbird species was calculated from Checklist data for each of the ecozones and classes of birds above. Checklist data were first screened to remove lists in which all bird species were not recorded, or the observer self-identified as "fair" at species identification, or month was not June or July. Counts per species were averaged across years within sites before further analysis.
4) The ratio of BBC density to checklist abundance (density conversion factor) was calculated for each ecozone and class of landbird. The two northern ecozones were collapsed into one due to lack of difference in conversion factors.
5) Density conversion factors were applied to checklist abundance data to provide density estimates of each landbird species at 649 sites across the arctic (those in BCR 3 in Canada).
6) Bird densities from checklist sites were averaged within each of 30 Arctic ecoregions, then multiplied by size of region to convert to a population estimate for that ecoregion. Estimates for unsampled ecoregions were derived as area-weighted averages from all sampled ecoregions in the same terrestrial ecozone. Population estimates were then summed across ecoregions to provide a total population estimate for each landbird species in the arctic.

Estimating global populations:

For species breeding entirely within the U.S. and Canada, our estimate of global population size was a simple sum of the above two estimates (BBS-based estimate plus arctic Canada estimate).

For species with broader breeding distributions, but still at least 10% of range in the U.S. and Canada, we extrapolated global population size on the basis of proportion of breeding range outside of the U.S. and Canada. Proportions of breeding range were estimated from range maps.

For species with more than 90% of breeding range outside the U.S. and Canada, we estimated global population size to order of magnitude (as for PS scores) based on range size and a comparison to population sizes of other landbird species that were judged to have similar relative abundance.

Exceptions to the methods presented above:

We accepted independent estimates of population size for some landbird species that have been surveyed by other methods more appropriate and specific to the species, for which continental-scale estimates were available or could be estimated at a level of accuracy deemed to be superior to our standard estimates.

Some assumptions in estimating population sizes:

For a variety of reasons, the population estimates presented here are rough estimates, and will need to be improved over time, especially for use at smaller scales. Without attempting to be comprehensive, a few main assumptions of the approach are mentioned here (see Rosenberg and Blancher, in press).

Habitats are sampled in proportion to their occurrence in the regional landscape: Although BBS is designed to provide a random sample of the landscape, limitations of a road-based survey mean that the landscape sampled is a biased representation of available habitat – for example species characteristic of high elevation habitats are likely to be undersampled by BBS simply because roads tend to follow valley bottoms in mountainous regions. In northern BCRs, there is a geographic bias, with most BBS data available from the southern portions of those BCRs. Checklist and Breeding Bird Census sites are determined by individual scientists and volunteers, so are not a random sample of arctic regions. We have not accounted for habitat bias in our continental estimates, in part because it will differ from region to region, and because the magnitude of bias has not yet been estimated in many regions or at a continental scale. Correction for habitat bias should be considered when using the methods described above at smaller scales.

Birds present but not detected during BBS counts are accounted for by one or more of the three density corrections applied above (pair, detection area, and time of day corrections): Species that have a peak of detection outside of the BBS sampling window (e.g., early-season breeders, most nocturnal species) are likely to have been underestimated. Pair corrections may result in over-estimation of population size, if a high proportion of counts involve either both members of a pair, or unmated birds.

Checklist / BBC-derived estimates from arctic Canada are comparable to BBS estimates: There are no BBS data from BCR3 in Canada to test this assumption. However, checklist/BBC-derived landbird density was 79 birds/km2 in the Canadian arctic, versus a BBS-derived 127 birds/km2 in the BCR 3 portion of Alaska. This difference is in the expected direction, because the Canadian arctic has a larger proportion of High Arctic where landbird density is typically low.

Breeding density within the U.S. and Canada is similar to density elsewhere in the breeding range: Extrapolation of population size estimates to global population rely on this assumption, though it does not affect U.S./Canada population estimates, nor population objectives for the U.S. and Canada.

How accurate are the population estimates?:

Measures of precision for population estimates are not presented in this Plan. Although we have measured variance associated with some of the parameters, others have yet to be estimated. Conversion of BBS relative abundance to estimated density depends on several adjustment factors, each of which carries associated variance. A high proportion of undetected birds, habitat bias and incorrect assignment of detection distance category have potential for large effects on estimates. Nevertheless, comparison with atlas-derived population estimates suggests that population sizes are still well within the correct order of magnitude for landbirds regularly encountered on BBS routes (Rosenberg and Blancher, in press). Additional comparisons will be useful for refining the estimates and independent estimates are sought for all species.

Estimates of percent of global population:

Estimates of the percent of global population within BCRs and biomes were needed to assign BCRs to Avifaunal Biomes, to identify Stewardship Species in those biomes, to construct maps weighted by proportion of population in Avifaunal Biomes, and to provide an indication of degree of regional responsibility for Watch List and other species.

Breeding season

For the breeding season, estimates of proportion of global population were calculated by dividing regional population estimates by global population estimates.

Winter percents

For resident species, we assumed percent of global population was the same as in the breeding season. For migratory species, we based our estimates for the U.S. and Canada on Christmas Bird Count (CBC) data, calculated as follows:

1) For each CBC count circle surveyed between 1990/91 and 1997/98, birds observed per 100 party-hrs were calculated and then averaged across years to give a single effort-adjusted count per species per count circle.

2) Effort-adjusted counts were averaged across all CBC count circles in each geo-political polygon defined by the intersection of a BCR and a province / state / territory. These average effort-adjusted counts were then multiplied by area of the geo-political polygon to yield an abundance index for each species in the polygon.

3) Abundance indices were summed across polygons within BCRs to give an abundance index for each BCR. Where a geo-political polygon was not sampled by CBC sites, an area-weighted average from other polygons in the same BCR was assigned. Most geo-political polygons without CBC count circles were in the boreal forest or arctic, where relatively few landbird species spend the winter.

4) Percent of U.S. and Canada winter population was then calculated for each BCR by dividing BCR abundance indices (from step 3) by the sum of all BCR indices across the U.S. and Canada.

5) Percent of global winter population was estimated in the same manner as summer population estimates, using proportion of winter range to estimate proportion of global range in the U.S. and Canada.

Some assumptions in estimating percent of population:

Habitat bias is consistent across the survey area: Because estimates of percent are relative measures, they are much less affected by habitat bias and density corrections than are population estimates, as long as biases are relatively consistent across the survey area. Thus percent of population based on CBC circles can be reasonably accurate despite strong potential for bias in the non-random placement of circles.

Differences in effort among CBC counts can be standardized by dividing by party-hour: In fact, species will respond differently to different types of effort (party-hour, party-mile, feeder counts, nocturnal effort). Also, response to increasing effort is likely to be non-linear, eventually becoming asymptotic. However, estimates of percent of winter population by BCR or avifaunal biome were relatively insensitive to these issues. Comparison of percents of winter population were similar whether calculated without any effort correction, correcting with party-miles, or using party-hours to correct effort. Only for a few northern species were there important differences depending on which method of error correction was used.

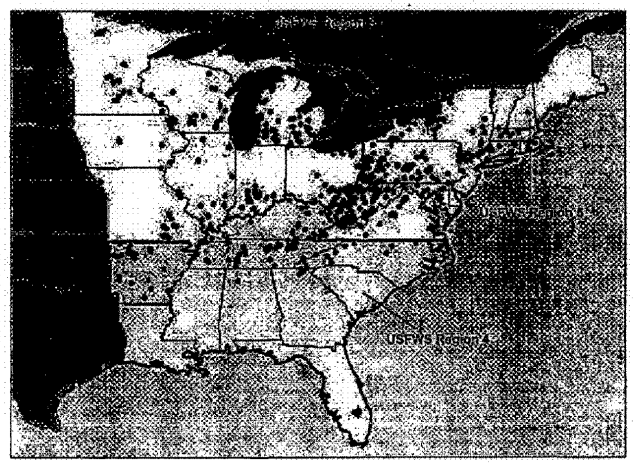
AN ATLAS OF CERULEAN WARBLER POPULATIONS

Final Report to USFWS: 1997–2000 Breeding Seasons

Kenneth V. Rosenberg, Sara E. Barker, and Ronald W. Rohrbaugh
Cornell Lab of Ornithology, Ithaca, NY 14850

December, 2000

CEWAP populations throughout the Cerulean Warbler's range, 1997–2000



Map 1. Cerulean Warbler populations, as documented by CEWAP, in USFWS regions 3, 4, and 5.

Contents

INTRODUCTION 3
Need For Project 3
Project Goals 3
METHODS 4
RESULTS 5
Range-wide Summary 5
Regional Summaries 9
USFWS Region 3 9
USFWS Region 4 10
USFWS Region 5 11
State Summaries 13
Alabama 13
Arkansas 13
Connecticut 15
Delaware 16
Georgia 17
Illinois 17
Indiana 19
Iowa 21
Kansas 21
Kentucky 22
Massachusetts 23
Maryland 24
Michigan 25
Minnesota 26
Missouri 28
Nebraska 30
New Jersey 30
New York 32
North Carolina 35
Ohio 37
Pennsylvania 38
Rhode Island 40
South Dakota 40
Tennessee 40
Virginia 42
Vermont 44
Wisconsin 45
West Virginia 46
DISCUSSION AND CONCLUSIONS 50
Habitat and Area Reqirements 51
Monitoring and Research Needs 52
ACKNOWLEDGMENTS 53
LITERATURE CITED 54
APPENDIX 56

INTRODUCTION

The Cerulean Warbler Atlas Project (CEWAP) was a four-year study designed to determine the population status, habitat, and area requirements of Cerulean Warblers (*Dendroica cerulea*), a high-priority Neotropical migratory bird, within USFWS Regions 3, 4, and 5. This study employed volunteer birders as well as professional biologists, and was administered through the Partners in Flight (PIF) regional and state working groups, USFWS contacts, and the Cornell Lab of Ornithology's network of citizen-scientists. This CEWAP Final Report summarizes and reports data submitted by each participating state and region from the 1997 to 2000 breeding seasons.

Need For Project

The Cerulean Warbler is among the highest priority landbirds for conservation in the United States. It ranks as extremely high priority on the national Watchlist based on Partners in Flight prioritization scores, and it ranks second in terms of immediate conservation concern in the PIF Northeast region (Rosenberg and Wells 1995, 2000). These priority rankings are based on a small total population size and a significant declining Breeding Bird Survey (BBS) trend throughout its range (-4.2% per year since 1966). Cerulean Warblers are declining across much of their North American breeding range and are now listed as a species of concern in 13 states, threatened in 2 states, and endangered in 1 state. They are also federally listed as "vulnerable" in Canada. In portions of the Northeast, however, Cerulean Warblers are thought to be expanding their range and population size. In the Midwest and Southeast—as well as areas in the Northeast such as New England, New York and New Jersey—this species is not adequately sampled by the BBS because of low overall density. Therefore, its distribution in these areas remains poorly known and accurate population trends have not been estimated.

Because of severe declines throughout the Cerulean's range, the USFWS has recently completed a Status Assessment of Cerulean Warblers (Hamel 2000), for possible listing under the Endangered Species Act. Hamel (2000) provides a compilation of historical records and contemporary anecdotes about the status of this bird; however, the report is limited by the lack of recent published information on this species from most states. In particular, conservation planning for regional populations is hampered by poor knowledge of present-day breeding locations, as well as by a lack of local data regarding habitat affinities, area requirements, or threats. In October 2000, a petition was filed to list the Cerulean Warbler as federally threatened. In light of the Status Assessment and the petition, updated data concerning the Cerulean's status, population numbers, and critical breeding sites are of utmost importance. CEWAP attempted to fill these knowledge gaps by coordinating the efforts of professional biologists and experienced birders through a simple protocol designed to survey and study Cerulean Warblers throughout each region.

Project Goals

The original goals of CEWAP, as stated in the Scope of Work to the USFWS, were as follows:

- Identify important populations of Cerulean Warblers in each state, and determine the status of these populations—how many pairs? Are they reproducing successfully? Are there local threats to the population? Are populations expanding or declining?
- Determine the range of acceptable habitats and area requirements in each region—measure habitat structure, landscape characteristics of sites, nest-site characteristics, estimate densities in different forest-types, attempt to estimate productivity.
- Identify suites of bird and plant species associated with Cerulean Warblers
- Set population and habitat goals for the Northeast region and sub-region units, as part of the regional PIF planning process
- Produce a "how-to" manual of habitat management strategies for areas having (or potentially supporting) Cerulean Warblers

This atlas of Cerulean Warbler populations addresses the first portion of these ambitious goals. In this report we identify specific locations of present-day breeding populations in each region and state and attempt to estimate population sizes based on data collected by over 200 field collaborators. We also provide summaries of the habitat types and dominant tree species present at sites occupied by breeding Cerulean Warblers. Additional analyses of CEWAP data using GIS may elucidate patterns of habitat use at the landscape and regional scales. The results of this atlas will be incorporated into PIF landbird conservation plans; in particular, lists of specific sites for management or acquisition, as well as local data on habitats used, will aid in setting regional population objectives for this species. Our intention is to publish a completed version of this atlas, along with the most up-to-date summary of conservation and management guidelines, based on CEWAP and other information.

METHODS

CEWAP took advantage of the expertise of active birders and professional biologists by employing networks of volunteers. The Lab of Ornithology hired field assistants in 1997, 1998, and 1999 to cover areas thought to be potentially important breeding areas for ceruleans. These specific areas within states were systematically searched; however, coverage of entire states was often still incomplete.

Field protocols consisted primarily of surveying known sites (determined through state atlas workers, other birders, and published literature) to determine numbers of pairs, breeding status of population, and conservation status of site. In addition, participants surveyed as many new or potential sites as possible, to identify new breeding sites and determine status (as in the first project goal). At a small subset of sites with large or important populations, additional data on nesting and foraging, as well as productivity and threats to populations, was available through collaborating researchers.

Because of our reliance on volunteers and unsupervised field assistants, and the large differences in terrain and habitats surveyed, there was much variation in actual survey methods employed in the field. A majority of data came from variations on the "area-search" method, where observers moved through potential habitats noting presence and numbers of singing male Cerulean Warblers. Variations ranged from systematic surveys along all navigable waterways by canoe in the Montezuma Wetlands Complex of NY (Bill Evans), to driving slowly along rural roads in northern NJ (John Benzinger), to hiking the Appalachian Trail in Virginia and North Carolina, to floating stretches of several rivers in Missouri, to systematically driving and hiking through forested regions and conducting point counts wherever ceruleans were detected (David Buehler), to spot-checking isolated woodlots. Field surveys often used recorded Cerulean Warbler vocalizations (as needed) to elicit responses from territorial males, approximate territorial boundaries (especially in linear habitats), and determine pairing status (females often respond to tapes within their territories). After visits to a site were completed, observers were asked to attempt an estimate of the total breeding population of Cerulean Warblers at that site.

In addition to these CEWAP surveys, we received several datasets with point-count locations for Cerulean Warblers, often detected during more general bird surveys. In these cases, it is often impossible to know how much available habitat was covered or what proportion of a regional population of Cerulean Warblers was sampled—these are retained in our Atlas as minimum estimates for these areas. In a few states we relied on additional surveys conducted prior to CEWAP or as part of independent research efforts. Finally, some holes in our Atlas were filled by gleaning miscellaneous records from birding e-mail lists, recently published Breeding Bird Atlases, or by hounding certain birders and state biologists until they told us what they knew.

We instructed participants to define a "site" as any contiguous patch of similar and suitable habitat surrounded by a different habitat type. Because of the great variation in survey methods and types of data we received, the actual designation of sites in our database is highly inconsistent. These range from specific locations of individual Cerulean Warblers within a larger contiguous area, to politically defined State Park or Wildlife Management Area boundaries, to entire river valleys with their adjacent slopes. In all cases; however, a "site" represents a *unique latitude and longitude* provided by a participant and entered into our database. Although this variation leads to difficulties in interpreting numbers or proportions of sites occupied in various regions or states, this flexibility in our protocols enabled us to receive the maximum amount of data from the widest group of volunteers and collaborators.

All sites were located on topographic maps, and data on habitat, landscape characteristics, and land ownership were noted on simple data forms. Specifically, field observers recorded site location, latitude and longitude, elevation, history of disturbance, general habitat type (riparian, swamp forest, dry slope, etc.), three or more dominant tree species, and canopy height. This information was compiled and entered into a GIS database by Lab of Ornithology biologists.

RESULTS

Range-wide Summary

A total of 280 CEWAP participants and collaborators reported data on Cerulean Warblers; these included 29 paid field assistants hired over the 3-year period (Table 1; see also Appendix 1 for complete list of CEWAP participants). The sum of data we received accounted for 7,669 Cerulean Warblers at 1,923 sites in 28 states, plus Ontario. Virtually all reports were of singing males; therefore numbers reported throughout this Atlas are assumed to represent number of territorial males or breeding pairs. An additional 355 sites were searched with no birds found; in general observers only reported positive sightings, and these do not represent random samples of available areas or habitats. Note too, that "sites" ranged in scope from individual point-locations to whole river valleys, so these data provide only a rough indication of number of different areas that support Cerulean Warbler populations.

Table 1. Summary of CEWAP participants, numbers of sites, and number of Cerulean Warblers reported, by state, 1997–1999.

State	Number of participants signed up	Number returning data	Number of sites surveyed	Number of sites with birds	Number of birds found
Alabama	7	1	6	6	7
Arkansas	12	4	48	46	145
Connecticut	22	7	20	13	34
District of Columbia	4	0	-	-	-
Delaware	6	2	7	7	10
Georgia	18	5	16	14	22
Iowa	9	2	9	9	22
Illinois	26	3	32	21	1000+
Indiana	22	8	73	34	342
Kansas	1	1	1	1	1
Kentucky	17	8	113	59	140
Massachusetts	22	6	11	10	18
Maryland	17	6	11	9	16
Maine	4	0	-	-	-
Michigan	36	15	183	176	507
Minnesota	17	4	57	57	103
Missouri	14	5	32	31	301
Mississippi	2	0	-	-	-
Nebraska	2	1	1	1	1
New Hampshire	5	0	-	-	-
New Jersey	18	7	32	31	157
New York	159	57	286	246	1068
North Carolina	19	12	42	39	109
Ohio	46	17	78	62	264
Oklahoma	2	0	-	-	-
Ontario	9	1	5	4	228
Pennsylvania	81	38	206	182	548
Rhode Island	3	1	1	0	0
South Carolina	3	0	-	-	-
South Dakota	2	2	2	2	3
Tennessee	27	14	488	485	1210
Virginia	48	15	106	64	152
Vermont	13	2	4	3	3
Wisconsin	25	10	60	59	174
West Virginia	68	27	345	254	1124
TOTALS	786	280	2274	1923	7669

The scope and distribution of rangewide surveys is illustrated in Map 1 (frontispiece). Populations were surveyed throughout the entire range of the species, although coverage in many areas was patchy or incomplete. The largest number of birds were found in Tennessee, West Virginia, New York, and Illinois (Table 1; see state summaries below). These numbers require additional interpretation; however, because relative coverage of available sites varied greatly among states. For example, coverage was fairly complete near the periphery of the species' range (counts in NY and IL therefore may be close to total state populations), whereas only a sample of areas was covered in states near the center of the range (WV, TN, PA, KY).

The largest gaps in our overall atlas coverage were in Kentucky (entire state), western Maryland and Virginia, southern Ohio, and the Missouri Ozarks. In addition, many areas of West Virginia, Pennsylvania, Arkansas, and southern Indiana were only partially surveyed.

Although population estimates may not be representative for many states, CEWAP identified a large number of specific areas that are currently known to support significant populations of Cerulean Warblers. For example, nearly 60% of all birds found were concentrated in 37 geographic areas in 16 states and Ontario (Table 2). Areas with the largest concentrations included the Cumberland Mountains northwest of Knoxville, Tennessee, the Montezuma Wetlands Complex and adjacent areas in central New York, Kaskaskia River Valley and Shawnee National Forest in southeastern Illinois, Jefferson Proving Ground of southern Indiana, Queens University Biological Station in southeastern Ontario, Kalamazoo River of southwestern Michigan, the Eleven Point and Upper Current Rivers in Missouri, Shenendoah National Park and Blue Ridge Highway in western Virginia, and the Delaware River Valley and adjacent highlands of northwestern New Jersey. The total population in West Virginia, Kentucky, and western Pennsylvania is certainly much higher than these numbers, but Cerulean Warblers are less concentrated in specific areas (i.e. the habitat is more continuous).

An additional 36 areas supported from 20-50 singing male Ceruleans and accounted for another 978 (13%) of the total birds detected (Table 3). These may represent secondary areas for long-term monitoring of Cerulean Warbler populations.

Table 2. Areas supporting the largest Cerulean Warbler populations (≥ 50 pairs), rangewide. These locations may represent primary areas for future population monitoring. See state summaries for more specific locations and information on these areas.

# Birds	State	Area	Habitat Type
430	TN	Royal Blue Wildlife Management Area, Cumberland Plateau	Mesic slopes, cove forest
325	NY	Montezuma Wetlands Complex	Riparian, forested wetland
300+	IL	Kaskaskia River	Mixed floodplain
238	TN	Center Hill Lake Area, Edgar Evins State Park	Mesic slope, dry slope
202	IN	Jefferson Proving Ground	Mesic upland forest
200	ON	Bedford/Queen's University Biological Station	Upland, bottomland
200+	IL	Illinois Ozarks, Shawnee National Forest	White-oak dominated forest slopes
177	MI	Kalamazoo River, Alleghan State Game Area	Riparian, swamp forest
167	NY	Alleghany State Park and vicinity	Riparian, dry slopes
150+	IL	Cave/Cedar Creek	Sycamore-boxelder
142	TN	Frozen Head State Park	Mesic slopes
138	NY	Iroquois NWR, Oak Orchard WMA, Tonowanda Indian Reservation	Riparian, forested wetland
137	MO	Eleven Point River	Riparian
121	AR	Ozark National Forest	Upland, bottomland
114	MO	Upper Current River	Riparian
108	VA	Blue Ridge Parkway, Shenendoah National Park	Dry slope, mesic cove forest
100+	IL	Pere Marquette State Park, Big Rivers	White oak-pecan-black locust
100	MI	Fort Custer and vicinity	Dry upland forest
95	NY	Galen Wildlife Management Area	Riparian, forested wetland
94	WV	New River Gorge—Garden Ground Mountain Area	Dry slopes, riparian
90	NJ, PA	Delaware River Valley	Riparian, adjacent slopes
78	WV	Kanawha State Forest	Mesic cove forest, dry slope, riparian
78	WV	Guyandotte Mountain and vicinity	Upland forest
75+	KY	Daniel Boone National Forest	Upland forests
75	TN	Chickasaw National Wildlife Refuge	Riparian swamp forest
71	WI	Lower Wisconsin River drainages	Riparian, adjacent slopes
69	PA	Jennings Environmental Center, Moraine State Park	Dry slope, lake margin
65	WV	Louis Wetzel WMA	Dry slope, riparian
63	NY	Salmon Creek	Riparian, mesic slope
60	NC	Blue Ridge Parkway, Pisgah National Forest	Dry slope, cove forest
56	OH	Shawnee State Park and Forest	Dry slope, riparian
54	TN	Meeman Shelby State Park, Mississippi Delta region	Mesic slope, riparian
50+	IL	Mississippi Palisades State Park and vicinity	White oak-walnut-black locust forest
50+	IL	Rock River	Riparian forest
50	NJ	Kittatinny Mountains	Mesic and dry slopes
50	WV	Beech Fork State Park	Lake margin, dry slope
50	WV	North Bend State Park and Rail Trai, Mountwood Park	Dry slope, cove forest, riparian

7

Table 3. Areas supporting moderate-sized (20–50 singing males) Cerulean Warbler populations rangewide. These locations may represent secondary areas for long-term monitoring.

# Birds	State	Area	Habitat Type
45	OH	Lake Metroparks	Riparian, dry slope
44	MI	Waterloo Recreation Area	Dry upland forest
42	PA	Juniata River and vicinity	Riparian
40	WV	Greenbrier River drainage and adjacent mountains	Dry slopes
36	WV	Fork Creek WMA—Little Coal River and vicinity	Riparian, mesic slope
34	OH	Zaleski State Forest/ Lake Hope State Park	Mesic slope, dry slope
34	MO	Curtois Creek	Riparian
33	NY	Bear Mountain State Park	Dry slope, bottomland
32	OH	Waterloo Township—Hewett Fork	Dry slope, mesic slope
32	TN	Cheatham Wildlife Management Area	Dry slope, mesic slope
31	WI	Lower Wisconsin River	Riparian, mesic slope
29	OH	Cuyahoga Valley National Recreation Area, Brecksville Reservation—Cleveland Metroparks	Riparian, dry slope
29	PA	Peter's Mountain and State Game Lands	Dry slope, lake margin
28	TN	Natchez Trace Parkway, National Park	Dry slope, mesic slope
28	WV	Murphy Preserve	Moist cove forest, dry slope, riparian
26	NY	Castleton Island State Park	Riparian, river island
25	NJ	Hamburg Mountain and vicinity	Dry slope, lake margin
25	TN	Mill Creek Rd.	Dry slope
24	MI	White River	Riparian
24	WI	Wyalusing State Park	Dry slope, mesic slope
23	PA	Brady's Run County Park	Dry slope
23	WV	Coopers Rock State Forest	Mesic slope, dry ridgetop
22	MI	Brown County State Park	Upland, lake margin, riparian
22	PA	Forbe's State Forest and vicinity	Dry slope
22	VA	Canoe Lake—Hahn Property	Upland
22	WV	Ritchie Mines WMA	Dry slope
21	MI	St. Joseph River	Riparian
20	IL	Illinois River Valley	Cottonwood-oak floodplain forest
20	IL	Cache River	Mixed floodplain forest
20	MN	Murphy-Hanrehan Park Reserve and County Park	Riparian, mesic slope
20	NY	Letchworth State Park	Riparian
20	NY	West Point Military Reservation	??
20	PA	Duff Park and Boyce Park	Dry slope, riparian
20	PA	Ten Mile Creek and vicinity	Riparian, dry slope
20	VA	Clinch Ranger District, Jefferson National Forest	Dry slope, cove forest
20	WI	Lake LaGrange	Mesic slope

8

Regional Summaries

USFWS Region 3

Within USFWS Region 3, CEWAP participants found a total of 1,745 Cerulean Warblers at roughly 439 sites. This does not include data from Illinois, provided by Scott Robinson, which accounted for an additional 1,000–3,000 birds in that state. CEWAP coverage was patchy throughout the region, with the most concentrated efforts in southern Michigan, southeastern Missouri, and southern Indiana. A scattering of Cerulean populations were located along the Mississippi River and its major tributaries in the upper Midwest, and in the Ohio River drainage along the southern boundary of the region. The largest single populations in the region are believed to be located in Illinois along the Kaskaskia River and Illinois Ozarks region (500+ pairs), Jefferson Proving Ground in southern Indiana (200+ pairs), Kalamazoo River and Fort Custer areas in Michigan (275+ pairs), and along the Eleven Point and Upper Current Rivers in Missouri (250 pairs). Coverage was poorest in southern Ohio and elsewhere in Indiana and Missouri, where undoubtedly many other populations exist (Map 2.)

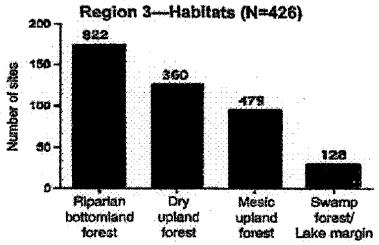
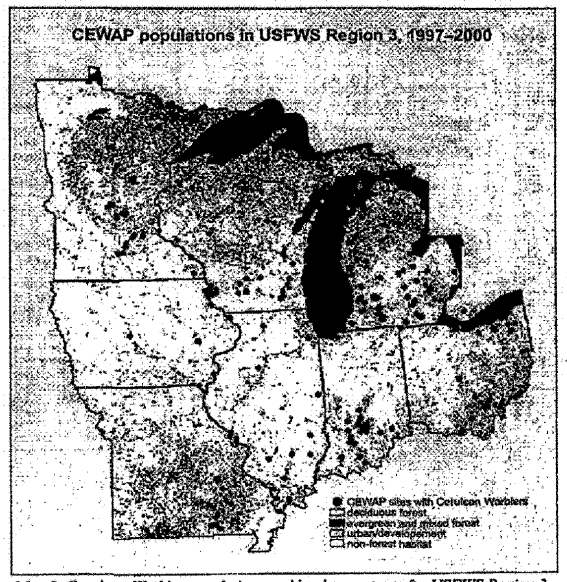


Figure 1. Habitat classifications at sites with Cerulean Warblers in USFWS Region 3. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

Overall, Cerulean Warblers showed a distinctly bimodal habitat distribution, with roughly the same numbers of birds found occupying bottomland and upland habitats. Among the 426 specific sites with habitat data, roughly 40% were in riparian bottomland forest, accounting for 485 of the Ceruleans found (not counting Illinois). An additional 305 of sites were in dry upland forest and 225 were in mesic uplands, accounting for 21% and 28% of the birds found, respectively (Figure 1).

For 164 sites in Region 3, participants provided data on the extent of available habitat at sites where Cerulean Warblers occurred. Although a quantitative analysis of forest patch size is not possible with these data, we believe that they provide a reasonable sample of the range of tract sizes used in the region. Roughly 41% of occupied sites were described as 1,000 acres or greater, accounting for 65% of all birds found (Figure 2). An additional 265 birds were found in 70 tracts between 200 and 1,000 acres, and fewer than 10% of the birds were in patches ≤ 100 acres.



Map 2. Cerulean Warbler populations and land cover types for USFWS Region 3.

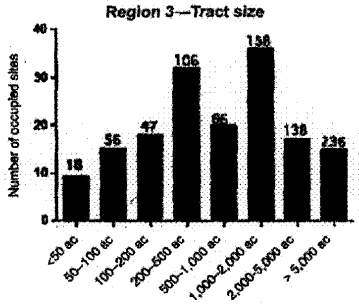


Figure 2. Numbers of occupied sites and forest tract sizes for sites in USFWS Region 3. Numbers of individual Cerulean Warblers recorded in each tract-size class are noted above the bars.

USFWS Region 4

In the Southeast region, CEWAP participants and collaborators found a total of 1,560 Cerulean Warblers at 633 specific sites (Map 3). Coverage was patchy throughout the region, ranging from intensive surveys of several key areas in Tennessee to scattered observations from many other areas. The biggest holes in atlas coverage were in eastern Kentucky. The largest Cerulean population in the region is undoubtedly in the Cumberland Mountains and Plateau areas of Tennessee and probably Kentucky. Additional significant populations were located in the Blue Ridge of North Carolina, the Ozarks of Arkansas, and in central Tennessee. Small populations were documented at the edge of the species' range in northern Georgia, northern Alabama, and the coastal plain of North Carolina (Roanoke River). No recent breeding records could be obtained in Mississippi, South Carolina, or Louisiana.

Of 550 specific sites reporting habitat data, the majority (73%) were in mesic upland and moist cove forest habitats, accounting for 575 of the birds found throughout the region (Figure 3). An additional 265 birds were found at 70 dry slope and ridgetop sites, whereas only 13% of birds were in riparian forest habitat.

For 117 sites in Region 4, participants provided data on the extent of available habitat at sites where Cerulean Warblers occurred. Although a quantitative analysis of forest patch size is not possible with these data, we believe that they provide a reasonable sample of the range of tract sizes used in the region. Roughly 74% of occupied sites were described as 1,000 acres or greater in extent, accounting for nearly 95% of all birds found (Figure 4). Only 4% of the birds found in this region were in habitat patches ≤ 200 acres.

Map 3. Cerulean Warbler populations and land cover types for USFWS Region 4.

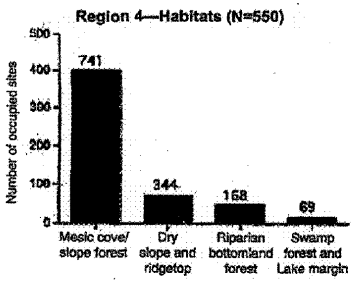


Figure 3. Habitat classifications at sites with Cerulean Warblers in USFWS Region 4. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

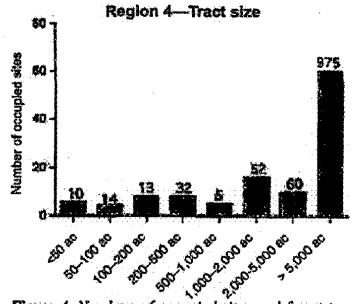
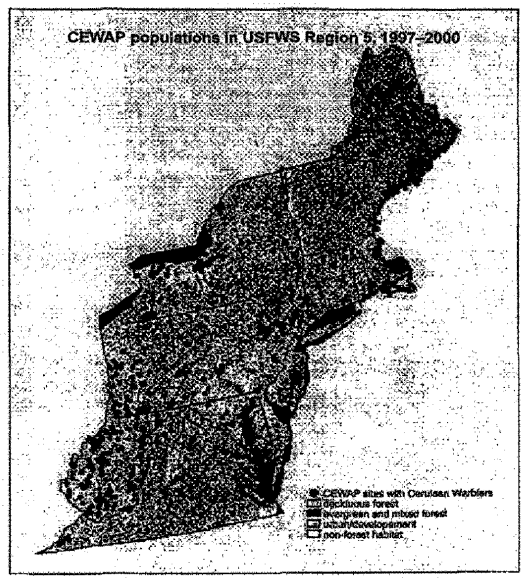


Figure 4. Numbers of occupied sites and forest tract sizes for sites in USFWS Region 4. Numbers of individual Cerulean Warblers recorded in each tract-size class are noted above the bars.

USFWS Region 5

In the Northeast Region, a total of 3,077 Cerulean Warblers were located at 820 specific sites (Map 4). Intensive surveys at many sites in West Virginia and western Pennsylvania turned up roughly 1,400 Ceruleans in the heart of the species' range—this is undoubtedly only a small fraction of the true population in these states. Outside of the Ohio Hills physiographic area, large and significant populations were documented in several areas including the Montezuma Wetlands complex and surrounding areas in central New York (400+ pairs), Allegheny State Park and National Forest area of western New York and Pennsylvania (175+ pairs), the Delaware Water Gap region of northwestern New Jersey and adjacent Pennsylvania (150+ pairs), and the Blue Ridge Parkway area of western Virginia (100+ pairs). In addition, smaller populations exist in



Map 4. Cerulean Warbler populations and land cover types for USFWS Region 5.

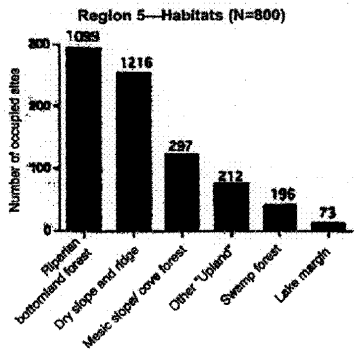


Figure 5. Habitat classifications at sites with Cerulean Warblers in USFWS Region 4. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

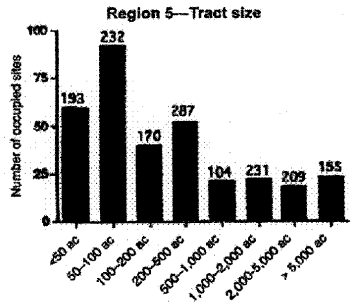


Figure 6. Numbers of occupied sites and forest tract sizes for sites in USFWS Region 5. Numbers of individual Cerulean Warblers recorded in each tract-size class are noted above the bars.

the Hudson River Valley and Highlands of southeastern New York, and in many parts of Pennsylvania. Small but persistent populations were found throughout southern New England, in northern New York, and in the Piedmont of Maryland and Virginia. Finally, although not in this USFWS Region, a large population of Cerulean Warblers exists in Ontario, not far from the New York border.

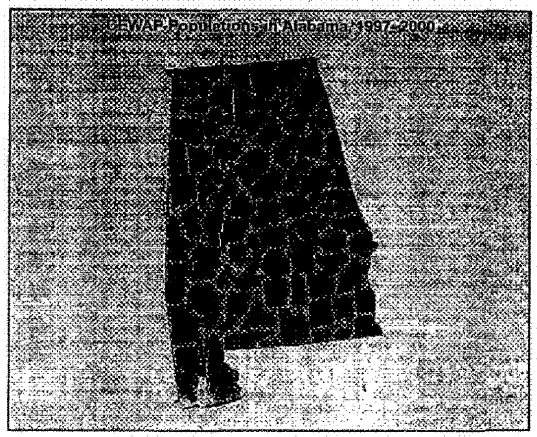
As in other regions, Cerulean Warblers exhibit a distinctly bimodal habitat distribution in the Northeast. Of the 800 specific sites with habitat data, 43% were in riparian or other bottomland forest habitats, accounting for 44% of individual Ceruleans found (Figure 5). An additional 39% of birds were found at 256 dry slope or ridgetop sites, with the remainder of birds in other upland habitats.

For 333 sites in Region 5, participants provided data on the extent of available habitat at sites where Cerulean Warblers occurred. Although a quantitative analysis of forest patch size is not possible with these data, we believe that they provide a reasonable sample of the range of tract sizes used in the region. Roughly 19% of occupied sites were described as 1,000 acres or greater in extent, accounting for 40% of all birds found (Figure 6). This is a much lower proportion than in the other two regions. In contrast, 57% of occupied sites were described as ≤ 100 acres, supporting 29% of the Ceruleans found in this region. Whether these data indicate a lower threshold of area sensitivity by Cerulean Warblers in the Northeast, compared with other regions, or whether the range of available habitats searched was different, is unclear.

State Summaries

Alabama

Our current data for Alabama (Map 5) comes from Eric Soehren (e-mail communication, Oct. 2000), who reported birds from two sites in the Bankhead National Forest (Lawrence and Winston counties). Five birds were observed in the Sipsey Wilderness and 2 were noted along Flannagin Creek. The total population for this area is thought to possibly be much larger, and more systematic surveys are recommended.



Map 5. Cerulean Warbler populations in Alabama. Polygons represent clusters of sites where ceruleans were found in close geographic proximity.

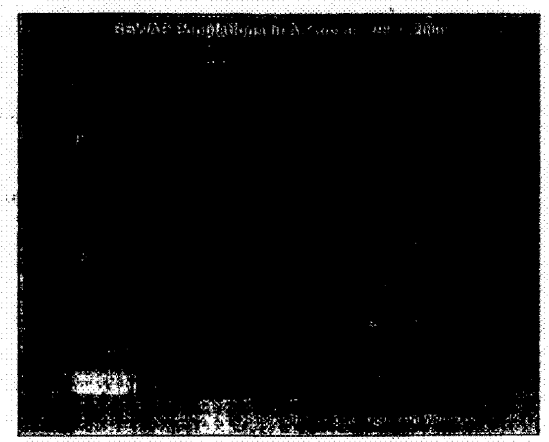
Arkansas

There is little published information on the presence/absence or relative abundance of Cerulean Warblers in Arkansas; however, Hamel (2000) does cite a few references suggesting that the species is common in the Ouachita National Forest and western Ozarks. The primary area searched by CEWAP participants was the Ozark National Forest in the northwestern part of the state (Map 6). It is likely that additional populations exist in the Ouachita National Forest and unsearched areas of the Mississippi Delta region.

CEWAP participants observed 145 birds at 46 (96%) of 48 sites visited in Arkansas. Of these, 121 (83%) were noted in the Ozark National Forest and 14 (10%) were detected in Desha and Prairie counties of the Mississippi Delta region (Table 4). No birds were discovered at two separate sites along the Ouachita River (near Callion) and the Saline River (near Rison). Data from the Ozark National Forest consisted of individual Cerulean Warblers reported on point counts; it is unclear how complete this sampling was for the species in this region.

Table 4. Important areas for breeding Cerulean Warblers in Arkansas.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
121	Ozark National Forest	6 counties	Upland, bottomland	750–2250
14	Mississippi Delta region	Desha, Prairie	Bottomland	145–183



Map 6. Cerulean Warbler populations in Arkansas. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Of the 46 sites with Ceruleans, 35 (76%) were classified as upland and 12 (25%) were bottomland (Figure 7). Upland sites accounted for 113 (79%) Cerulean observations, whereas 30 (21%) birds were observed in bottomland habitats.

Among the 33 sites that recorded tree species, upland sites were dominated by oaks (mostly red oak) and hickories, whereas bottomland sites reported sweetgum, maples, and sycamore (Figure 8).

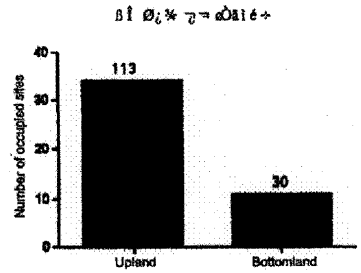


Figure 7. Habitat classifications at sites with Cerulean Warblers in Arkansas. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

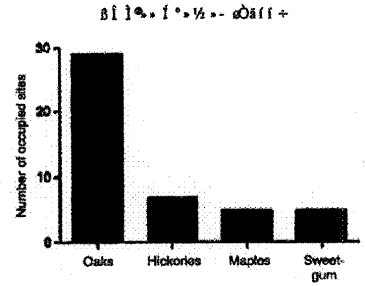


Figure 8. Predominant tree species reported at occupied sites in Arkansas. "N" equals number of sites with tree species reported by CEWAP participants.

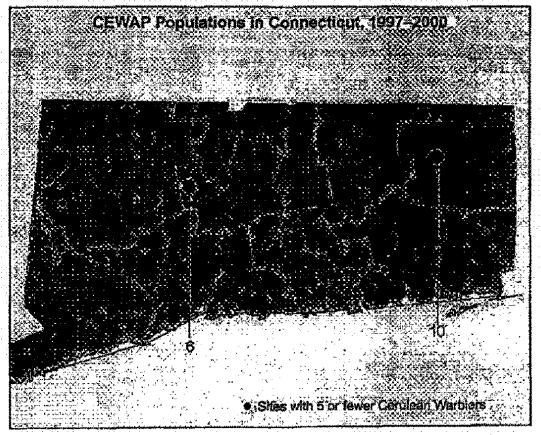
Connecticut

The *Atlas of Breeding Birds in Connecticut* reported Cerulean Warblers from 6.5% of all atlas blocks (Bevier 1994). CEWAP coverage in Connecticut was patchy, but distributed in several regions. Ceruleans were observed in all regions searched, except the extreme southwest corner near the towns of Redding and Weston (Map 7).

CEWAP participants counted 34 birds at 13 (65%) of 20 sites visited in Connecticut. Of the 34 individuals, 10 (29%) were noted in Natchaug State Forest in Windham County. Other important areas for Ceruleans included habitat along the Housatonic River in Litchfield County and the Session Woods Wildlife Management Area in Hartford County (Table 5). Additional single birds were found at Kahn Preserve near New Milford, Nehantic State Forest near Lyme, Bend of the River Audubon Center near Southbury, and the Yale Forest in Windham County. Among the areas searched that did not have Ceruleans were Devil's Den Preserve and Limekiln Natural area in Fairfield County.

Riparian and other bottomland sites accounted for 16 of the 34 cerulean observations, whereas 12 Ceruleans were noted in upland forest habitats (Figure 9).

Oaks and maples were the most commonly reported tree species at occupied sites; however, birch, hickory, sycamore, and eastern hemlock were also reported (Figure 10). The Natchaug State forest is a 12,500 acre site dominated by red oak, white oak, black oak and hickory, whereas sites along the Housatonic River had sycamores, red and silver maples, white oaks, and ash.



Map 7. Cerulean Warbler populations in Connecticut. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 5. Important areas for breeding Cerulean Warblers in Connecticut.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
10	Natchaug State Forest	Windham	Lake margin, dry slope	??
6	Housatonic River—Kent, Bull's Bridge	Litchfield	Riparian	370
5	Session Woods WMA	Hartford	Riparian	750
3	Pleasant Valley Nature Preserve	Middlesex	??	??
3	Hartman Park, Lyme	Middlesex	??	??
2	Still River Preserve	Litchfield	Riparian	250

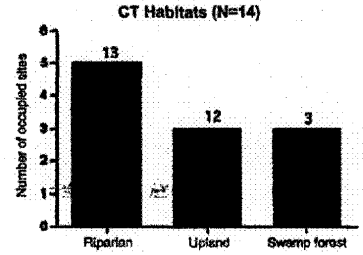


Figure 9. Habitat classifications at sites with Cerulean Warblers in Connecticut. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

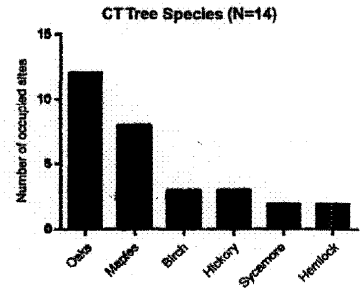


Figure 10. Predominant tree species reported at occupied sites in Connecticut. "N" equals number of sites with tree species reported by CEWAP participants.

Delaware

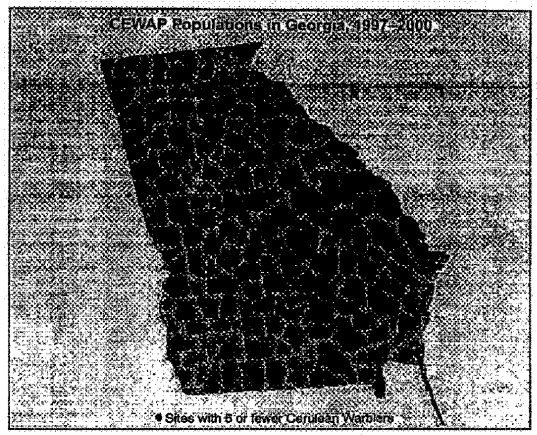
Hamel (2000) reported that "Preliminary results from the Delaware Breeding Bird Atlas indicate the birds were found in two blocks in the northern part of the state (Lisa Gelvin-Innavaer, pers. comm., 18 Sept. 1996)."

CEWAP participants counted 10 Cerulean Warblers at 7 sites in the northern Delaware county of New Castle (Map 8). All these birds were along White Clay Creek in riparian and adjacent upland forest. The forest was dominated by sycamore, maples, tulip tree, and walnut. This area is adjacent to a site with two additional birds at the White Clay Creek Preserve in Chester County, PA.

Map 8. Cerulean Warbler populations in Delaware. Polygons represent clusters of sites where ceruleans were found in close geographic proximity.

Georgia

CEWAP surveys yielded 22 birds at 14 (87%) of 16 sites visited (Map 9). Nearly all the birds were on the Chattahoochee National Forest in Union County, between 2,640 and 3,400 ft. elevation, either on dry slopes or in cove forest. Specific sites on the national forest included Walnut Knob, Poplar Knob, Rogers Knob, Steedly Mountain, and Rockface Lead.



Map 9. Cerulean Warbler populations in Georgia. Polygons represent clusters of sites where ceruleans were found in close geographic proximity.

Illinois

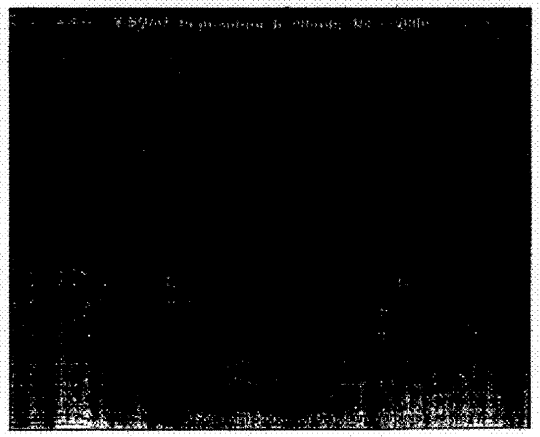
Our knowledge of Cerulean Warblers in Illinois comes primarily from Scott Robinson and Glendy Vanderah of University of Illinois at Urbana-Champaign, who completed statewide surveys for this species between 1992 and 1997. We are grateful to these researchers for sharing their unpublished data, which make up the bulk of our account, below. A few additional observers surveyed about 8 sites during the CEWAP, but we did not solicit participation in Illinois in light of the recently completed surveys (Map 10).

Robinson and Vanderah completed 2,587 census points and 253 census routes, sampling 117 forest tracts statewide. They estimated Cerulean Warbler abundance in 21 regions of the state and extrapolated to produce a range of population estimates for each area. The results of this ambitious survey yielded a statewide population of between 1,000 and 3,000 singing male Cerulean Warblers. More than 75% of these were concentrated in four areas in the southwest portion of the state—Kaskaskia River Valley, Pere Marquette State Park and Big Rivers along the Mississippi River, Cave/Cedar Creek, and the Illinois Ozarks (Table 6). Smaller populations occur further north along the Mississippi River and along a few other river systems. The highest density of singing males (0.66 per 50-m point count) was found at the Cave/Cedar Creek sites.

Habitat selection varied across the state, with the majority of birds occupying tall, diverse floodplain forests or white-oak dominated slopes. An interesting situation occurred locally in black locust groves within larger forest tracts. At Pere Marquette State Park, Cerulean Warbler territories in black locust ranged from 2 (1996, 1997) to 15 (1996), presumably a response to local outbreaks of lepidopteran larvae on this tree species. Similarly, at Mississippi Palisades State Park, number of territories in black locust ranged from 1 in 1994 to 13 in 1992.

Cerulean Warblers in Illinois occurred with much greater frequency in larger forest tracts (Figure 11).

(Continued on page 19)



Map 10. Cerulean Warbler populations in Illinois. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 6. Important areas for breeding Cerulean Warblers in Illinois (data from Robinson and Vanderah, unpublished).

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
300–1,000	Kaskaskia River	Clinton, St. Clair, Washington	Mixed floodplain forest	420
200–500	Illinois Ozarks, Shawnee National Forest	Jackson, Union	White oak dominated slopes	400–600
150–300	Cave/Cedar Creek	Jackson	Sycamore, boxelder forest	??
100–200	Pere Marquette State Park, Big Rivers	Jersey	White oak-pecan-black locust forest	420–600
50–150	Mississippi Palisades State Park and vicinity	Carroll, Jo Daviess	White oak-walnut-black locust forest	500–750
50–100	Rock River	Ogle, Lee, Whiteside	Riparian	600
20–50	Illinois River Valley	various	Cottonwood-oak floodplain forest	450–600
20–50	Cache River	Johnson, Pulaski	Mixed floodplain forest	400–450
10–50	Till Plain region	various	??	420–450
10–20	Little Wabash River	White, Gallatin	??	420
10–20	Big Muddy River	Franklin	Mixed floodplain forest	420

Roughly half of 48 tracts ≥ 500 ac (200 ha) were occupied, whereas only 2 of 42 tracts < 80 ha (200 ac) had birds. Rates of nest parasitism by Brown-headed Cowbirds were relatively high; e.g. 75% in Illinois Ozarks and 80% at Mississippi Palisades State Park.

Robinson and Vanderah point out that Illinois is near the center of the Cerulean Warbler's historic range and that the species was abundant there during the 1800s. Today the species is "rare, patchy, and extremely area sensitive." They were found to be absent or very rare in (1) drier forests on poor or sandy soils; (2) pure tree plantations (pines, sweetgum, tulip-tree); (3) younger or heavily logged forests; (4) urban woodlots; and (5) forest patches < 200 ha (500 ac) that are scattered through the agricultural landscape.

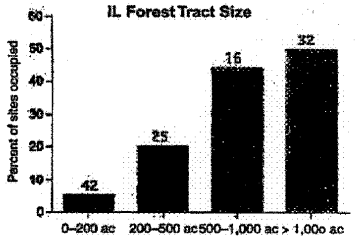
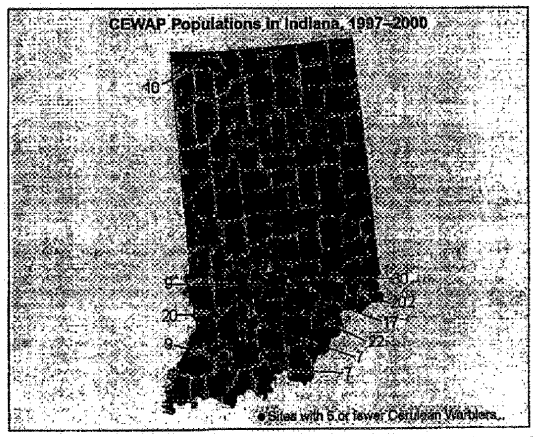


Figure 11. Percent of forest tracts in four size classes occupied by territorial Cerulean Wablers in Illinois. Numbers of sites sampled are above bars. Data from S. Robinson and G. Vanderah unpublished.

Indiana

The *Atlas of Breeding Birds of Indiana* (Brunner 1998) reports that Cerulean Warblers were found at 21% (347) of atlas blocks statewide. Ceruleans were most numerous in atlas blocks located in the southeastern and south-central portions of the state. CEWAP coverage in Indiana was confined primarily to the southern one-third of the state.

CEWAP participants counted 342 birds at 34 (47%) of 73 sites searched in Indiana. The 7,700-acre Jefferson Proving Ground in Jefferson, Ripley, and Jennings counties accounted for 202 (59%) of the Cerulean sightings (Map 11). Other important areas included Brown County State Park and Muscatatuck National Wildlife Refuge, which combined accounted for 39 observations (Table 7). Roughly 60 birds were found at various locations in the vicinity of Lake Monroe southeast of Bloomington. An isolated population at Indiana Dunes on Lake Michigan consisted of at least 10 individuals.



Map 11. Cerulean Warbler populations in Indiana. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Although only 7 (21%) of the 34 sites were classified as mesic upland, this habitat type accounted for 247 (72%) of Cerulean observations (Figure 12). Roughly 97 birds were found in various bottomland and lake-margin habitats in Indiana, and an additional 34 individuals were found in dry upland forests.

Maples and sycamore were reported from the largest number of occupied sites (Figure 13); however, the site with the largest population (Jefferson Proving Ground) was dominated by white oak and tulip tree. Bottomland sites consisted primarily of sycamore and maples, with black walnut and elms also frequently reported.

Table 7. Important areas for breeding Cerulean Warblers in Indiana.

Number of birds	Site location	County (s)	Habitat (s)	Elevation (ft)
202	Jefferson Proving Ground	Jefferson, Ripley, Jennings	Mesic upland forest	900
22	Brown County State Park	Brown	Upland, lake margin, riparian	650–750
17	Muscatatuck NWR	Jackson, Jennings	Swamp forest, mesic slope	550
10	Indiana Dunes National Lakeshore	Porter	Swamp forest, riparian	600–650
10	Turkey Creek Bottom	Martin	Bottomland	520
9	Gross Road	Monroe	Mesic and dry upland	550–720
9	Patoka River	Pike	Riparian	420
7	Little Blue River	Monroe	Riparian	400
7	Tank Spring Bottom	Martin	Bottomland	510–530
6	Goldsberry Hollow	Martin	Bottomland	480–510
5	Camp Roberts Cove	Brown	Bottomland	710–850
5	Rogers Road	Monroe	Moist Cove forest	660–770

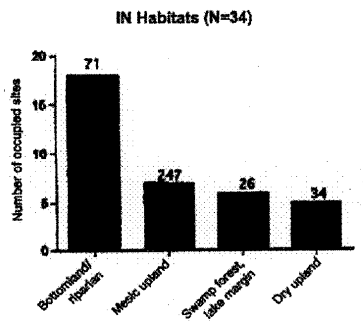


Figure 12. Habitat classifications at sites with Cerulean Warblers in Indiana. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

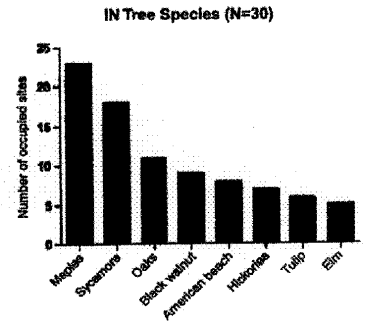
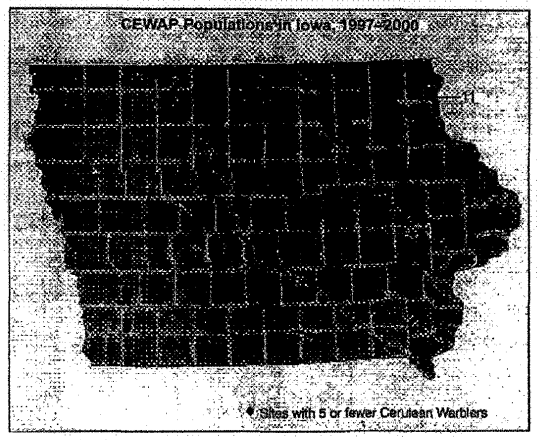


Figure 13. Predominant tree species reported at occupied sites in Indiana. "N" equals number of sites with tree species reported by CEWAP participants.

Iowa

The *Iowa Breeding Bird Atlas* reported ceruleans from 44 (6%) atlas blocks in 28 counties. However, these observations occurred mainly in priority blocks that had been selected because they contained large amounts of forest. Most reports were from extreme eastern Iowa and the DeMoines River floodplain (Cecil 1996).

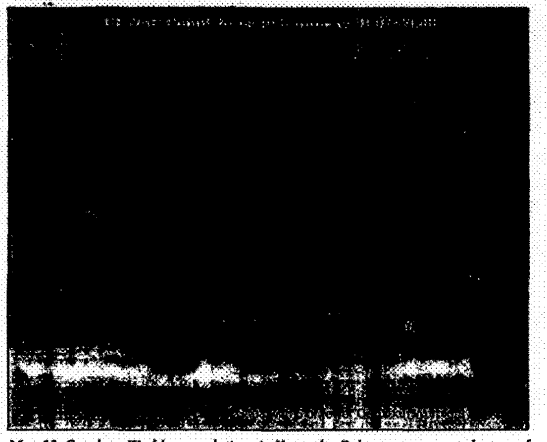
CEWAP participants tallied 22 ceruleans at 9 sites in 6 counties (Map 12). The most important sites were located along the Mississippi River in Allamakee and Clayton counties, where 11 birds were observed.



Map 12. Cerulean Warbler populations in Iowa. Polygons represent clusters of sites where ceruleans were found in close geographic proximity.

Kansas

CEWAP participants documented 1 cerulean at the Western Bend Bottomlands on the Fort Leavenworth Military Reservation. The bird was in riparian forest dominated by sycamore, cottonwood, and ash. This was the only site surveyed by CEWAP. Other populations may exist in the eastern part of the state (Thompson and Ely 1992).



Map 13. Cerulean Warbler populations in Kentucky. Polygons represent clusters of sites where ceruleans were found in close geographic proximity.

Kentucky

The Kentucky Breeding Bird Atlas (Palmer-Ball 1996) reports Cerulean Warblers from 16% of priority atlas blocks statewide. They were "fairly widespread" in the Cumberland Plateau and Mountains regions and "very locally distributed" over much of the remainder of the state. Hamel (2000) notes that the current status in Kentucky is very different from older accounts which state that this species was much more common and widespread.

This state received limited coverage from CEWAP participants. Most of our reports came from two sources: a point-count dataset from the Daniel Boone National Forest in eastern Kentucky (Linda Perry), and some additional surveys conducted through the KY Department of Fish and Wildlife Resources (Steve Thomas). Consequently, our atlas leaves large gaps, especially in the Cumberland Plateau region.

Data from Daniel Boone National Forest reveals a minimum of 71 birds from 96 point counts, primarily in the Pioneer Weapons area, Wolf knob, Somerset and London Borea districts. We have no habitat data associated with these points. Other surveys reported an additional 67 Ceruleans from 20 sites, mostly state owned parks and management areas. The most birds found were 15 at Beech Creek WMA (Clay County), 7 birds each at Kentenia State Forest (Harlan County) and Fleming WMA (Fleming County), and 6 Ceruleans at Sloughs WMA (Union and Henderson Counties) (Map 13).

Of the latter 20 sites, 10 were dry slopes or ridges, accounting for 33 individuals, 3 sites were in moist cove forest with 8 birds, and 7 sites were in bottomland areas including swamp forest and lake margins, accounting for 28 Ceruleans. White oak, shagbark hickory, tulip tree, and maples were the most frequently reported trees at upland sites, whereas sycamore, sweetgum, red maple and elms were most frequent at bottomland sites.

Map 14. Cerulean Warbler populations in Massachusetts. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Massachusetts

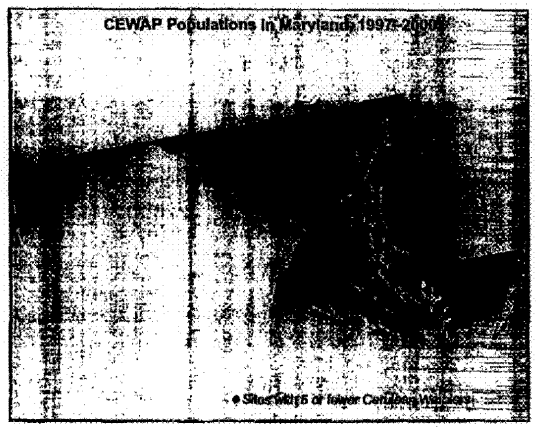
Veit and Peterson (1993) estimated the total Massachusetts population of breeding Cerulean Warblers to be 5 to 10 pairs.

CEWAP participants documented 18 Ceruleans at 10 of 11 sites visited across the state, with several sites reporting 2 to 3 singing males present (Table 8). Areas with Ceruleans include several in the Connecticut River drainage in Franklin County, two sites along Quabbin Reservoir, and surprisingly, two sites in eastern Massachusetts in Plymouth county (Map 14). About half of the birds found were in riparian or bottomland forest, and half in dry uplands.

Dominant tree species at occupied sites include oaks (red oak, white oak, northern red oak) and hickories in the uplands, red-maple swamp, and diverse riparian forests with cottonwood, willow, maples, oaks, birches, hemlock, and white pine.

Table 8. Important areas for breeding Cerulean Warblers in Massachusetts.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
4	Quabbin Reservoir (West slope and Whitney Hill)	Hampshire, Worcester	Dry slope	750–800
3	Little Wachusetts Mountain	Worcester	Dry slope	1279
3	Poets Seat—Greenfield	Franklin	Riparian	300
2	Stillwater—Deerfield	Franklin	Riparian	175
2	Middleboro	Plymouth	Swamp forest	50
2	Knightville Dam	Hampshire	Mesic forest	610–787
1	Dunbar Valley, Monroe State Forest, Rowe	Franklin	Riparian	1500
1	Erwin S. Wilder WMA	??	Dry slope	??



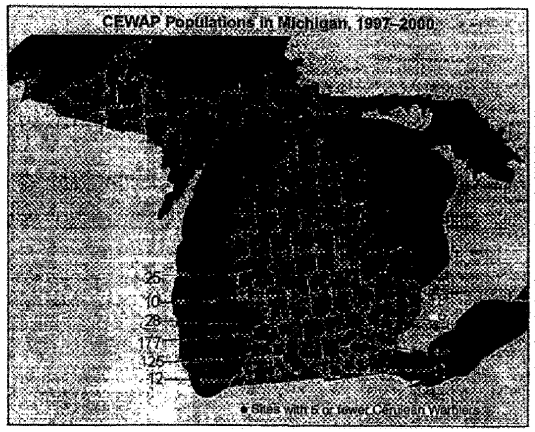
Map 15. Cerulean Warbler populations in Maryland. Polygons represent clusters of sites where ceruleans were found in close geographic proximity.

Maryland

Robbins and Blom (1996) report Cerulean Warblers at 165 out of 1,256 possible Breeding Bird Atlas blocks. The species was most common and widespread in the narrow ridge and valley of western Maryland, including Catoctin Mountain area, and locally distributed along rivers flowing down through the Piedmont.

CEWAP surveys yielded only 16 Ceruleans on 9 (82%) of 11 sites surveyed. Nine (56%) of the 16 observations came from Howard County in the central part of the state (along Patuxent and Patapsco Rivers) and four observations came from the Big and Little Patuxent Rivers in Anne Arundel and Prince Georges counties (Map 15). Two individuals were noted at Catoctin Mountain Park in Frederick County, and an anomalous bird was at Greenwell State Park near the mouth of the Patuxent River in St, Mary's County. The lack of surveys conducted in the ridge and valley of western Maryland, where this species is undoubtedly quite common, represents one of the largest gaps in this rangewide atlas.

All but the Catoctin birds were in riparian forests dominated by sycamore, tulip tree, and silver maple. The upland birds were in sugar maple-basswood forest.



Map 16. Cerulean Warbler populations in Michigan. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Michigan

The *Atlas of Breeding Birds of Michigan* (Brewer, et al. 1991) reports Cerulean Warblers from 155 (8.2%) of 1,896 townships, with 143 (92%) of these observations coming from the southern Lower Peninsula.

CEWAP surveys yielded a total 507 birds at 176 (96%) of 183 sites (Map 16). Two sites in Alleghan County, the Alleghan State Game Area and Kalamazoo River, accounted for 177 (35%) of the 507 birds observed (Table 9). Other important areas included Fort Custer in Kalamazoo and Calhoun counties, and the Waterloo Recreation Area in Washtenaw and Jackson counties.

Sites containing dry upland forest and riparian/swamp forest accounted for 185 (36%) and 150 (30%) cerulean observations, respectively. These two habitat types were present at 149 (85%) of 175 sites where habitat conditions were reported (Figure 14).

Of 129 sites where tree species were reported, 99 (78%) contained oaks and 51 (39%) contained maples. Other commonly reported tree species included hickories, America basswood, eastern hemlock, black cherry, and black locust (Figure 15). For the 117 sites where tree species data were reported, the most frequently observed species included oaks (black oak, red oak, and swamp white oak), maples (silver maple, sugar maple and red maple) and willow species.

Table 9. Important areas for breeding Cerulean Warblers in Michigan.

Number of birds	Site location	County (s)	Habitat (s)	Elevation (ft)
177	Alleghan State Game Area and Kalamazoo River	Alleghan	Riparian, swamp forest, mesic forest	600–700
100	Fort Custer and vicinity	Kalamazoo, Calhoun	Dry upland forest	820–1010
44	Waterloo Recreation Area	Washtenaw, Jackson	Dry upland forest	984–1050
24	White River	Muskeegan, Oceana	Riparian	600
21	St. Joseph River	Branch, St. Joseph	Riparian	853–886
10	Perry Trust	Barry	Mesic Forest	951
10	Flat River State Game Area	Montcalm	Dry upland forest	820

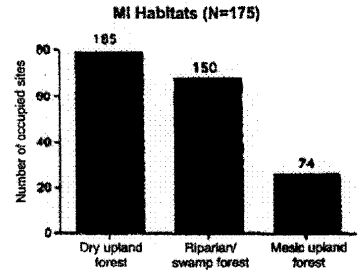


Figure 14. Habitat classifications at sites with Cerulean Warblers in Michigan. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

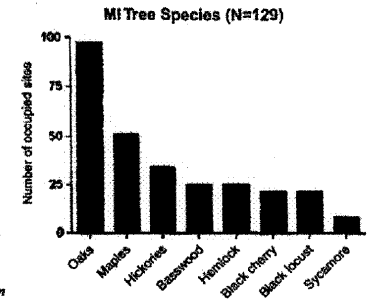


Figure 15. Predominant tree species reported at occupied sites in Michigan. "N" equals number of sites with tree species reported by CEWAP participants.

Minnesota

Citing a personal communication from Steve Stucker and Richard Baker of the Minnesota County Biological Survey, Hamel (2000) reports that "Since 1988, the Minnesota County Biological Survey has surveyed 22 counties within the range of the Cerulean Warbler. As a result of this effort, singing males were observed at 103 'locations' (or element occurrences) which can be grouped into 42 'local populations.' These consist of 8 local populations in floodplain forest and 34 local populations in upland forest. Seven of the 8 largest local populations were in upland forest."

CEWAP participants discovered 103 Cerulean Warblers at 57 sites in south-central Minnesota (Map 17). At least one individual cerulean was noted at each of the 57 sites surveyed (Table 10). Sites with greater than 10 Cerulean Warblers included Murphy-Hanrehan Reserve and County Park in Scott County, Lake Maria State Park in Wright County, and Stanley Eddy County Park in Wright County. Besides the cluster of sites in northern Wright County, a majority of birds were found near

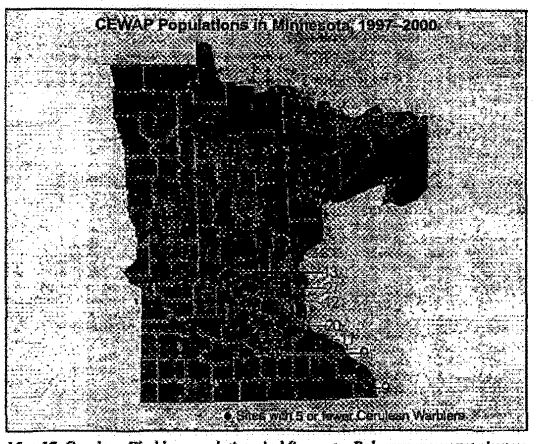
Table 10. Important areas for breeding Cerulean Warblers in Minnesota.

Number of birds	Site location	County (s)	Habitat (s)	Elevation (ft)
20	Murphy-Hanrehan Park Reserve and County Park	Scott	Riparian, mesic slope	1000
16	Lake Maria State Park	Wright	Riparian, dry slope	??
11	Stanley Eddy County Park	Wright	Dry slope	??
9	Beaver Creek Valley State Park	Houston	Riparian, mesic slope	752
9	Seven Mile Creek County Park	Nicollet	Riparian, dry slope	??
7	Kelly Lake, MN Valley Recreation Area	Carver, Scott	Riparian	??
8	St. Johns Woods	Stearns	Riparian, dry slope	??
5	Suconnix WMA	Wright	Riparian	??
5	Harry Larson County Park	Wright	Riparian	??

the Minnesota River in Scott, Carver, and Nicollet Counties. An outlying population was at Beaver Creek Valley State Park in the southeast corner of the state. At this point, we do not know how these sites compare with the Minnesota Biological Survey database.

Of 39 sites reporting habitat conditions, 20 (51%) were classified as riparian, while 17 (44%) were in dry slope conditions. Of the 79 birds observed at these 39 sites, 41 (51%) were noted in riparian and 23 were in dry slope habitats (Figure 16).

Oaks, maples, and American basswood were the most commonly reported tree species in Minnesota (Figure 17). At upland sites, red oak, bur oak, sugar maple, and basswood were most frequently reported, whereas at riparian sites cottonwood, silver maple, red oak, ash, and elm were dominant species.



Map 17. Cerulean Warbler populations in Minnesota. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

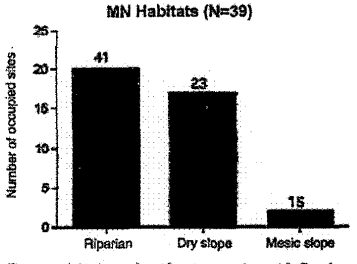


Figure 16. Habitat classifications at sites with Cerulean Warblers in Minnesota. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

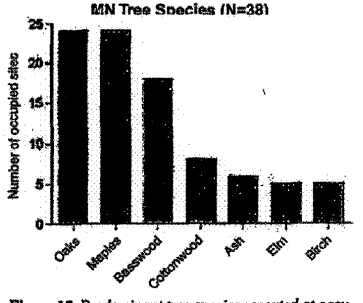


Figure 17. Predominant tree species reported at occupied sites in Minnesota. "N" equals number of sites with tree species reported by CEWAP participants.

Missouri

The *Missouri Breeding Bird Atlas* (Jacobs and Wilson 1997) reported Cerulean Warblers from 81 (7%) of 1,207 atlas blocks statewide. Hamel (2000) states:"Some Missouri occurrences in uplands, but the major numbers are associated with riparian corridors and other areas near rivers, particularly the Current, Jack's Fork, and Eleven Point rivers in the Ozarks in southeastern Missouri." CEWAP coverage in Missouri was confined to the southeastern portion of the state within these several major riparian areas. Note the lack of surveys from the Ozarks of southwestern Missouri; given the large number of birds found in northwestern Arkansas, we expect that similarly large populations may exist in that part of Missouri as well.

Almost all of the southern half of Missouri was originally, and is again today, blanketed by oak-hickory and oak-pine forests. In 1998 Jane Fitzgerald hired Tim Kippenberger and Tom Hall to survey several rivers in this Ozark region. Tim and Tom's canoe surveys of the Black River, Courtois Creek, Eleven Point River, and Huzzah River revealed densities of over 4.5 singing males per river mile. Mark Robbins (an ornithologist from the University of Kansas) who worked in conjunction with Tim and Tom discovered densities of 3.5 singing males per river mile when floating the Upper Current River. However, there were still distinct stretches of river where warblers were not present.

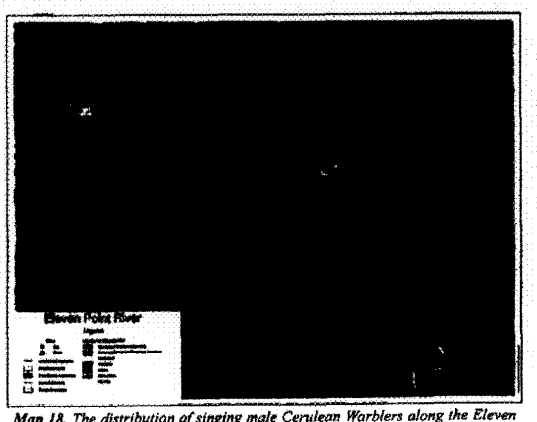
Stretches of the Eleven Point River were digitized in the fall of 1999 and entered into a GIS database at the Missouri Department of Conservation. Information on warbler distributions were then superimposed upon a map of land cover (i.e. the amount and distribution of cover types such as forest, pasture, urban areas, etc.) within a 7-mile distance on either side of the area of river in question (Map 18).

We were told that the maps would be updated sometime in 2000. An analysis will be run to determine the significance of relationships among landscape variables (e.g. percent of forest in the landscape, patterns of forest fragmentation, etc.) and warbler distributions. Results of the analyses will help us to better understand what geographic scale we need to consider as we attempt to conserve this high priority species in MO

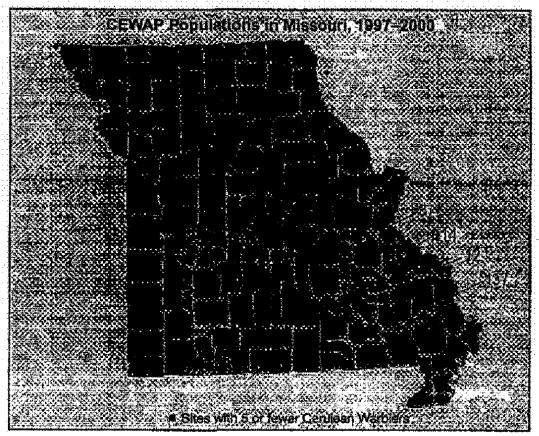
CEWAP participants in Missouri tallied 301 ceruleans at 31 (97%) of 32 sites surveyed (Map 19). The two most important areas were the Eleven Point River with 137 (45%) birds and the Upper Current River with 114 (38%) birds (Table 11).

Twenty-three (74%) of the 31 sites with Ceruleans were classified as riparian. Not surprisingly, these riparian sites accounted for 286 (95%) of the total number of observations (Figure 18).

Commonly reported tree species at occupied sites included sycamore, oaks, and maples. Other trees reported included American walnut, pines, birches, American elm, and willows (Figure 19). Mature sycamore forest is clearly the most important habitat for Cerulean Warblers along river systems in Missouri.



Map 18. The distribution of singing male Cerulean Warblers along the Eleven Point River, outlining the 1-kilometer zone where land cover is being mapped.



Map 19. Cerulean Warbler populations in Missouri. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 11. Important areas for breeding Cerulean Warblers in Missouri.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
137	Eleven Point River	Oregon	Riparian	495–670
114	Upper Current River	??	Riparian	??
34	Curtois Creek	Crawford	Riparian	640–680
12	Black River	Reynolds	Riparian	570

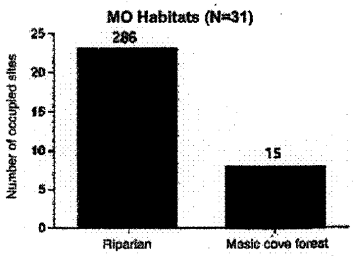


Figure 18. Habitat classifications at sites with Cerulean Warblers in Missouri. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

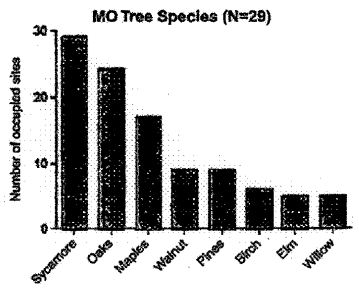


Figure 19. Predominant tree species reported at occupied sites in Missouri. "N" equals number of sites with tree species reported by CEWAP participants.

Nebraska

CEWAP participants surveyed 1 site at the Fontenelle Forest in Sarpy County, where they noted 1 Cerulean Warbler. This site was in a riparian forest along the Missouri River dominated by bur oak and hickory.

New Jersey

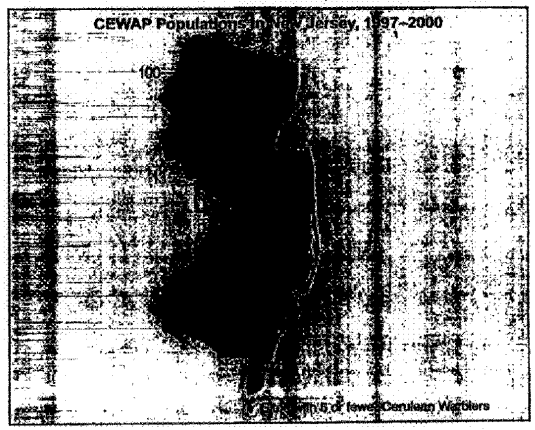
In New Jersey, the majority of our data came from John Benzinger, who conducted CEWAP surveys in 1999, and Dennis Miranda of the NJ Conservation foundation. In addition, Benzinger conducted surveys for the NJ Endangered Species and Nongame Program of the Division of Fish and Wildlife, and we gratefully acknowledge Amanda Dey for sharing results of these earlier surveys. Their quantitative assessments do not strictly follow CEWAP protocols, but provide a similar picture of habitat use in this region. Much of the following account is from Miranda (in litt. and pers. comm.) and from Benzinger's reports to the state agency.

In recent years, the Cerulean Warbler is a common breeder along the Delaware River, which divides this State from Pennsylvania (Map 20). From the Delaware Gap north to Port Jervis, NY, the Cerulean Warbler is found along the riparian corridor of the Delaware River. The birds tend to use mature deciduous stands of oaks, tulip poplar and sycamores as their prime habitat. The density of Cerulean Warbler along the Delaware River is impressive, with singing males found within several hundred feet of each other.

An extension of the Delaware River population has colonized the Stokes State Forest, High Point State Park, the Flatbrook-Roy Wildlife Management Area, and the Walpack Wildlife Management Area. Often the Cerulean Warblers carve their territories adjacent to or in the vicinity of lakes such as Sawmill Lake at High Point State Park and ponds created by beaver activity. Despite the presence of extensive forests, the Cerulean Warbler has a lower density in these highlands than in the Delaware River corridor.

The Cerulean Warbler also occurs in isolated spots in forested dry ridgetops, often associated with a forest openings. This habitat preference is infrequently used, with occurrences usually consisting of 2–3 singing males in close proximity of each other, but more scattered from each other than habitat used along riparian corridors. Site fidelity is questionable since an occupied site may be used one or two years and then go unused in subsequent years.

In the Highlands physiographic province of New Jersey, the Cerulean Warbler has always been an uncommon breeder along small rivers and streams and to a



Map 20. Cerulean Warbler populations in New Jersey. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

lesser extent on dry ridgetops. Small colonies composed of 2–3 singing males were the most common encounter. Some sites like Dunker Pond in the Newark Watershed and the Rockaway River in the Jersey City Watershed held small colonies for years during the 1980s. Today, the Cerulean Warbler is fast disappearing as a breeder in the Highlands despite plenty of extensive forests, with patch sizes up to 6,000 acres. The increased rarity results in occurrences limited to single birds or pairs in isolated areas and far from other known breeding sites. The Cerulean Warbler has the greatest concentration in the Highlands on Hamburg Mountain ridge of Vernon and Hardyston townships. Occurring in dry ridgetops near small lakes and ponds and along small streams, the Cerulean Warbler is found in locally dense colonies; sometimes 5-6 pairs can be found in a 1/2 mile stretch of stream or woods road. They are found in small openings of the canopy or in dense stands of primarily deciduous trees such as maples, tulip poplars, and oaks. The greatest concentrations occurs in the more remote areas of Hamburg Mountain far from forest edges and seemingly preferring deep forest interiors. An estimated 25–30 pairs can be found on Hamburg Mountain.

Additional surveys in the northern Highlands region by Benzinger and Miranda specifically targeted previously known sites and documented their recent disappearance or rarity. Locations of former occurrence include Ringwood State Park, Greenwood Lake, Canistear Reservoir, Dunker Pond, and Saffin Pond. Areas further east, especially adjacent to the Sterling Forest on the NY border, need to be more thoroughly searched in the near future.

South of the Delaware Water Gap and Northern Highlands, Cerulean Warblers occur in a few, isolated small populations. Most notable of these are the birds at Bulls Island State Park, which occupy mature sycamore forest in the Delaware River. Small numbers were also found in the vicinity of Jenny Jump and Allamuchy Mountain State forests, including along Shades of Death Rd. (Warren Co.) and the Pequest River near Tranquility (Table 12).

Benzinger noted the overall bimodal distribution of Cerulean Warbler habitats in New Jersey, as in other northeastern states. Roughly half of all individuals found were associated with strips of riparian forest along the Delaware river, Big Flatbrook Creek, or other major tributaries (Figure 20). Although CEWAP tree data were not provided from specific sites, these riparian forests are dominated by mature American sycamores. The other habitat most frequently used was upland forest on slopes and ridgetops, dominated either by mesic mixed oak forest or drier oak-hickory forests. As elsewhere in the region, various oaks (especially red oak and white oak), maples (especially red maple), white ash, and tulip tree are dominant trees at occupied sites. It is likely that high numbers of Ceruleans in the uplands of the Kittatinny Mountains results from their close proximity to the Delaware River—similar upland and streamside habitats farther east are unoccupied.

Benzinger further notes the propensity for Cerulean Warblers to occur at or near forest edges, especially near ponds, swamps, or at the border between a forested slope and non-forested river valley. Along the Delaware River, birds were sometimes observed in open-canopied

Table 12. Important areas for breeding Cerulean Warblers in New Jersey.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
40	High Point State Park, Stokes State Forest	Sussex	Dry ridgetop, upland forest	1300–1500
30	Worthington State Forest to Millbrook (Del. Water Gap)	Warren	Riparian, mesic slope	100–500
25–30	Hamburg Mountain and vicinity	Sussex	Dry slope, lake margin	1300–1500
20	Delaware River—Old Mine Rd.	Sussex	Riparian, mesic slope	200–500
12	Bull's Island State Park	Hunterdon	Riparian, river island	75-100
10	Wallpack WMA, Big Flatbrook Creek	Sussex	Riparian, mesic slope	200–500
5	Jenny Jump State Forest, Shades of Death Rd.	Warren	Upland forest	??
3	Pequest River, Tranquility	Warren	Riparian	850
2	Wanaque Wildlife Management Area	Passaic	Upland forest	1300
5	Allamuchy Mountain State Park	Warren, Sussex	Upland forest	900–1000
5	Wawayanda State Park	Sussex	Upland forest	1100–1500

patches, the apparent sites of abandoned homesteads or farms. Furthermore, several occupied areas along the Delaware represented forest strips within grassland or shrubland habitat, suggesting that structure of the forest canopy was more important than extent of habitat patches in this region. Virtually all occupied sites were in forest with canopy height > 15m.

At present, the vast majority of Cerulean Warblers in NJ are on public lands, both state and federally owned. Although these areas are under protection from largescale disturbance, specific management guidelines for Cerulean Warblers do not exist, and important habitats (e.g. strips of riparian forest) are potentially vulnerable to recreational development. An important exception is in the Northern Highlands region, where most birds occur on private land. In particular, the largest remaining population on Hamburg Mountain is currently threatened by development (Miranda).

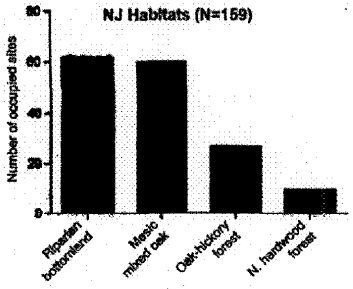


Figure 20. Habitat classifications at sites with Cerulean Warblers in New Jersey. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

New York

The *Atlas of Breeding Birds in New York State* (Andrle and Carrol 1988) reported Cerulean Warblers from 279 (5%) atlas blocks statewide. The bulk of the distribution was reported from the Lake Ontario Plain, with scattered populations south into the Finger Lakes, along the Southern Tier, and in the Hudson Valley and Highlands. Aadrle and Carrol, as well as Bull (1974) discuss the separate expansions of Cerulean Warblers into New York from the Great Lakes to the west, and from New Jersey and Pennsylvania to the south.

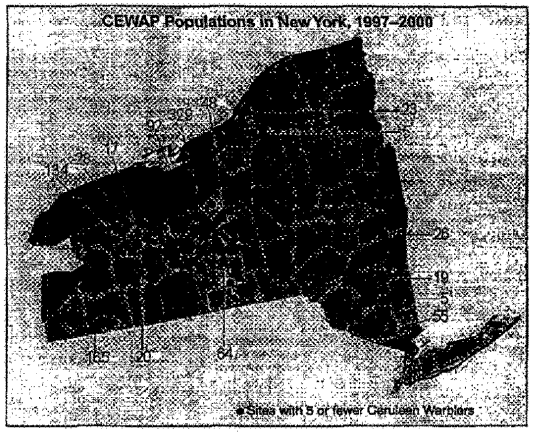
CEWAP participants documented 1,086 Cerulean Warblers at 246 (86%) of 286 sites surveyed in New York State (Map 21). Several areas proved to be important; however, four stand out because of exceptional numbers of birds. These include: the Montezuma National Wildlife Refuge in Wayne, Seneca, and Cayuga counties; the Alleghany River-Salamanca region in Cattaraugus County; the Galen Wildlife Management Area in Wayne County; and the Iroquois National Wildlife Refuge/Orchard Oak Wildlife Management Area in Genesee and Orleans counties. Combined, these four areas accounted for 626 (58%) of the Cerulean Warblers counted in the state (Table 13). Other important areas included several sites in the Hudson Highlands of southeastern New York and Salmon Creek near Cayuga Lake.

Of 240 sites where habitat data were reported, 184 (77%) were classified as bottomland/riparian. These bottomland/riparian sites accounted for 773 (74%) of the Cerulean Warblers observed. Forty-six sites were classified as dry slopes, accounting for 222 (21%) cerulean observations (Figure 21).

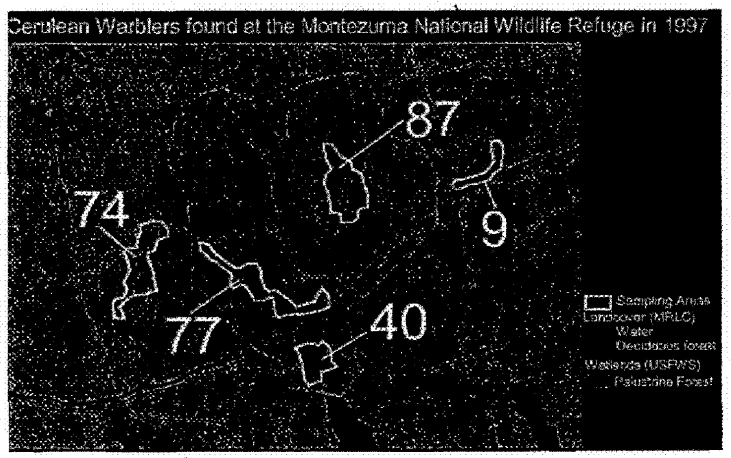
For 215 sites reporting tree species, the most commonly reported trees included maples, cottonwood, and oaks. Other important tree species at occupied sites included ash, American basswood, hickories, American beech, black locust, and sycamore (Figure 22). In a breakdown by region of the state, bottomland sites in the Montezuma and Iroquois region were dominated by cottonwood, silver and red maple, sycamore, and green ash. Sites in the Hudson Highlands were primarily white oak, American beech, sycamore, and ash, whereas sites along the Hudson River were predominantly cottonwood and sycamore. Sites in the Allegany region were dominated by white oak, red oak, chestnut oak, sugar maple, black cherry, and white ash. Cerulean habitat along Salmon Creek in Tompkins County consisted of a diverse forest with sycamores, cottonwood, and black locust in the floodplain and red oak, basswood, and maples on the surrounding slopes.

Most of the Cerulean Warblers in New York occur on publicly owned lands, with the largest populations on National Wildlife Refuges, State Parks, and State Wildlife Management Areas. An important exception is the Salmon Creek population, which exists entirely on private lands. Following initial CEWAP surveys; however, the local Finger Lakes Land Trust became interested in this site and has subsequently acquired several sections of prime Cerulean habitat from willing sellers The National Audubon Society of New York contributed to the conservation of this site by designating it an Important Bird Area and providing support to the Land Trust. Nearly every site with breeding Cerulean War-

(Continued on page 34)



Map 21. Cerulean Warbler populations in New York. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.



Map 22. Cerulean Warbler populations at Montezuma National Wildlife Refuge.

blers in New York State has been designated as an Important Bird Area (Wells 1998).

Montezuma Wetlands Complex. Probably the most complete surveys were conducted on and near the Montezuma National Wildlife Refuge in central NY (Map 22). Bill Evans surveyed most natural and artificial waterways by canoe, sampling a majority of the taller forested wetlands in the region. The 420± males found were concentrated largely in four areas, three of which lie within the USFWS acquisition area for the Montezuma wetlands complex (outlined in light blue on Map 4). The largest number (87 males) was found at Howland Island Wildlife Management Area, 77 males were found in a band from Mays Point Pool area westward, and 40 birds were in the Mud Lock area south of Rt. 20 and around Montezuma NWR headquarters. Note that the westernmost site, with 74 Ceruleans, is the Galen Wildlife Management Area, a state owned tract of similar habitat along the Clyde River. A few additional birds were found eastward along the Seneca River.

Table 13. Important areas for breeding Cerulean Warblers in New York.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
325	Montezuma wetlands complex	Wayne, Seneca, Cayuga	Bottomland, riparian	??
116	Alleghany River-Salamanca region	Cattaraugus	Riparian, dry slope	1350–2200
95	Galen Wildlife Management Area	Wayne	Riparian	??
90	Iroquois NWR, Oak Orchard WMA, and vicinity	Genesee, Orleans	Riparian, swamp forest	630
63	Salmon Creek	Tompkins	Riparian, mesic slope	??
51	Allegany State Park and vicinity	Cattaraugus	Dry slope	1400–2000
48	Tonawanda Indian Reservation,	Genesee	Riparian, swamp forest	650
33	Bear Mountain State Park	Rockland	Dry slope, bottomland	300–1000
26	Castleton Island State Park	Rensselaer, Greene	Riparian, river island	10
20	Letchworth State Park	Livingston	Riparian	??
20	West Point Military Reservation	Orange	??	??
19	Murray-Hulberton Area	Orleans	Riparian, swamp forest	395
15	Chittenango Creek	Onandaga, Madison	Riparian, swamp forest	385

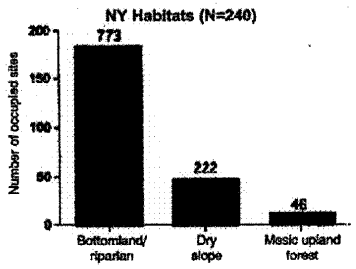


Figure 21. Habitat classifications at sites with Cerulean Warblers in New York. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

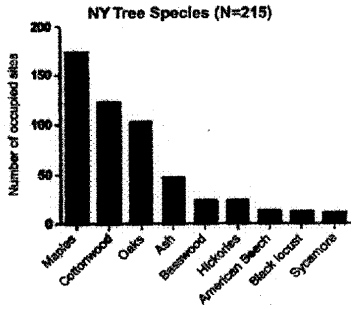


Figure 22. Predominant tree species reported at occupied sites in New York. "N" equals number of sites with tree species reported by CEWAP participants.

Observations of singing birds at Montezuma NWR (N = 235) showed heavy use of red and silver maples (44%), cottonwoods (28%), and ash (16%) (Figure 23).

Concentrations of Cerulean Warblers were all within contiguous blocks of palustrine forest dominated by maples and cottonwoods (shown in magenta within the acquisition area on Map 4). These forests exist primarily along canals and natural channels of the Clyde and Seneca rivers and are often inaccessible except by boat. Areas with many Ceruleans often consisted of unusually large trees, including emergent cottonwoods and swamp white oaks reaching 30 to 40 m in height. Some of these trees undoubtedly date back to the period of barge canal construction in the early 1800s. Average estimated height of trees with singing Ceruleans was 28.3 m (N = 145 trees). Some areas with Ceruleans were in younger forests (especially red maple swamps), but these tended to be adjacent to areas with taller trees. Additional tracts of seemingly suitable habitat, most notably in the Carusoe Lake area, were surveyed but turned up few or no Ceruleans.

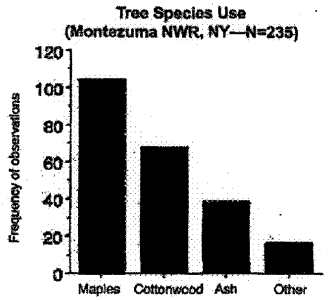
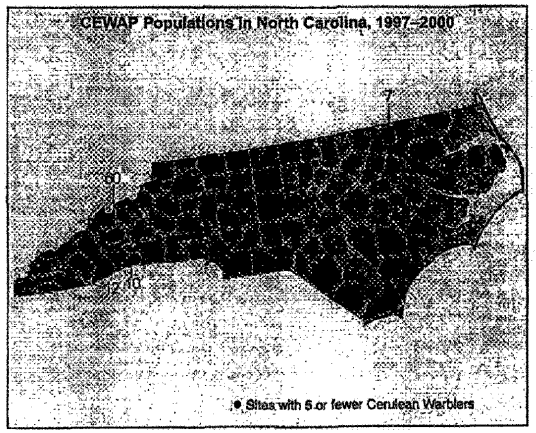


Figure 23. Tree species used by singing Cerulean Warblers in the Montezuma wetlands complex, central NY.

North Carolina

LeGrand (1979) indicates that ceruleans are "rare" and "local summer residents" at lower elevations in mountains and along the Roanoke River in the coastal plain.

CEWAP surveys yielded 109 birds at 39 (93%) of 42 sites (Map 23). By far, the most important site was along the Blue Ridge Parkway in Buncombe County, where 60 (55%) Ceruleans were noted (Table 14). Additional



Map 23. Cerulean Warbler populations in North Carolina. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

birds were located at other points along the Blue Ridge Parkway, on the Cheoah Ranger District of Nantahalah National Forest, and on White Oak and Warrior Mountains in Polk County. Only 3 birds were located in Great Smoky Mountains National Park. Finally, recent surveys along the Roanoke River revealed 7 Cerulean Warblers.

Of 27 sites reporting habitat data, 13 (50%) were classified as dry slope, while 9 (33%) were in riparian areas. Of the 75 Ceruleans reported from these 27 sites, 53 (71%) were in dry slope habitats, and 11 birds each were in riparian and cove forest habitats (Figure 24).

Upland sites along the Blue Ridge were dominated by oaks (white oak, scarlet oak, chestnut oak), hickories, and tulip tree, whereas riparian forests where Ceruleans occur along the Roanoke River were dominated by sycamore, cottonwood, and green ash (Figure 25).

Table 14. Important areas for breeding Cerulean Warblers in North Carolina.

Number of birds	Site location	County (s)	Habitat (s)	Elevation (ft)
60	Blue Ridge Parkway, Pisgah National Forest	Buncombe	Dry slope, moist cove forest	3100–3700
10	Cheoah Ranger District, Nantahalah National Forest	Graham	Dry slope, moist cove forest	??
10	White Oak and Warrior Mountains	Polk	??	2000–2400
7	Roanoke River	Halifax, Northampton	Riparian	50
4	Flat River Bluffs	Durham	Riparian	500
3	Blue Ridge Parkway	Ashe	Cove forest	3200
3	Nantahalah Lake, Nantahalah National Forest	Macon	??	??
3	Great Smoky Mountains National Park	Swain, Haywood	??	??
2	Stecoah Gap, Nantahola NF	Graham	Dry slope	3165
2	Chunky Gal Mountain	Clay	??	3400–3800
2	Doughton, U.S. 21	Wilkes	??	??
2	Chimney Rock Park	Rutherford	??	??

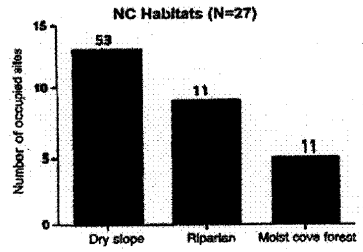


Figure 24. Habitat classifications at sites with Cerulean Warblers in North Carolina. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

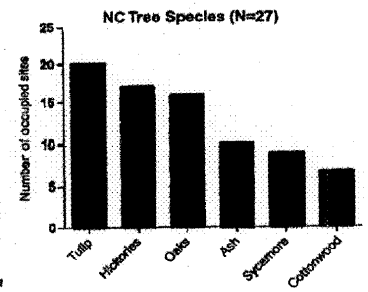


Figure 25. Predominant tree species reported at occupied sites in North Carolina. "N" equals number of sites with tree species reported by CEWAP participants.

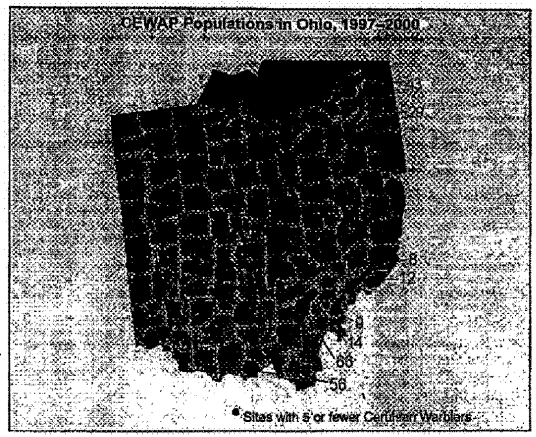
Ohio

Hamel (2000) reports the following breeding bird atlas information for Ohio: "Peterjohn and Rice (1991) relate the occurrence and abundance of cerulean warblers in Ohio to the occurrence and abundance of hardwood forests. The birds occurred on 51% of priority blocks statewide. They were very frequent in physiographic areas of the state with relatively large amounts of forest, e.g. 67-89% of blocks in the different portions of the Allegheny Plateau. In the heavily farmed Till and Lake Plain regions, they were encountered in only 21-24% of blocks." CEWAP surveys were concentrated mainly in the northeast and southeast portions of the state.

CEWAP surveys produced 264 Ceruleans at 62 (79%) of 78 sites visited (Map 24). Two of the most important areas were at opposite ends of the state — the Shawnee State Park and Forest in Scioto County, with 56 birds, and Lake Metroparks in Lake County with 45 birds (Table 15). Numerous other areas in the state also supported moderate numbers of Ceruleans, with a cluster of sites around the Zaleski State Forest in Vinton and Athens Counties supporting 66 birds and several sections of Wayne National Forest reporting at least 26 individuals.

Of 62 sites with known habitat conditions, 27 (43%) were classified as riparian/swamp forest, while 18 (29%) and 17 (27%) were classified as mesic slope and dry slope, respectively (Figure 26).

For 55 sites reporting tree species data, the most common species included oaks, maples, and sycamore (Figure 27). Dry slope habitats in southern Ohio were dominated by chestnut oak, scarlet oak, white oak, and hickories, whereas more mesic upland sites had predominantly white oak, maples, some American beech, and some tulip tree. Riparian sites in northeast Ohio were primarily sycamore forests with some cottonwood, tulip tree, walnut, and maples.



Map 24. Cerulean Warbler populations in Ohio. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 15. Important areas for breeding Cerulean Warblers in Ohio.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
56	Shawnee State Park and Forest	Scioto	Dry slope, riparian	750–1100
45	Lake Metroparks	Lake	Riparian, dry slope	650–1160
34	Zaleski State Forest/ Lake Hope St. Park	Vinton	Mesic slope, dry slope	??
32	Hewett Fork, Waterloo Township	Athens, Vinton	Dry slope, mesic slope	???
29	Cuyahoga Valley Nat. Recreation Area—Brecksville Reservation—Cleveland Metroparks	Cuyahoga, Summit	Riparian, dry slope	630-650
14	Utah Ridge, Wayne National Forest—Hocking River	Athens	Mesic slope, riparian	??
12	Wayne National Forest—Ludlow, Independence, Lawrence Township	Washington	Dry slope, mesic slope	660–1200
8	Clear Creek Valley	Hocking/Fairfield	Riparian	??
7	Marie J. Desonier State Nature Preserve	Athens	Riparian	??

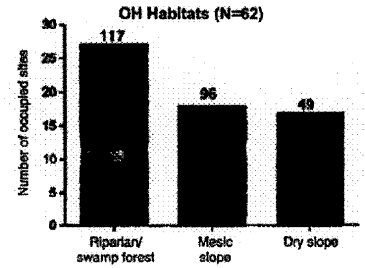


Figure 26. Habitat classifications at sites with Cerulean Warblers in Ohio. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

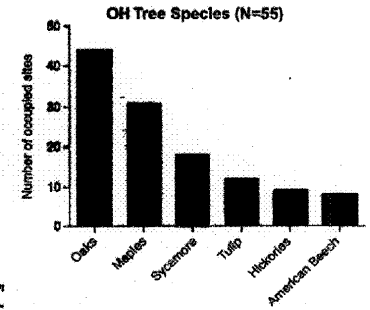


Figure 27. Predominant tree species reported at occupied sites in Ohio. "N" equals number of sites with tree species reported by CEWAP participants.

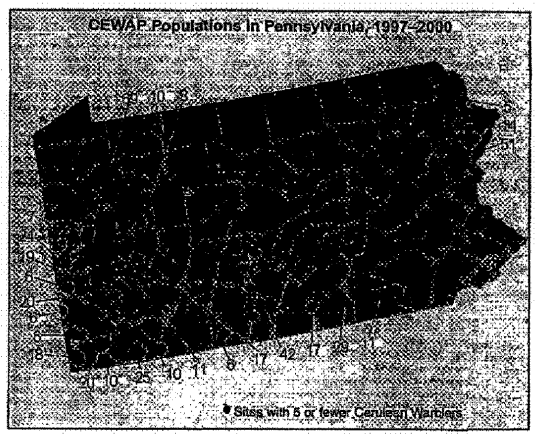
Pennsylvania

The *Atlas of Breeding Birds in Pennsylvania* (Brauning 1992) reported Cerulean Warblers from 836 (17%) atlas blocks statewide. Ceruleans were reported from nearly every county in the state; however, they were most frequently observed in the southwest corner (Pittsburgh Plateau). CEWAP surveys were focused mainly in the south-central and southwestern portions of the state, with additional coverage along the Delaware River Valley in northeast Pennsylvania.

CEWAP surveys tallied 548 Cerulean Warblers at 182 (89%) of 206 sites visited (Map 25). No single site within the state produced a large number of observations; however, several sites supported more than 25 Ceruleans. These included the Juniata River Valley in Huntington and Blair counties, Delaware River Valley in Pike and Monroe counties, Moraine Sate Park and Jennings Environmental Center in Butler county, and Peter's Mountain State Game Lands in Dauphin County (Table 16). Roughly half of the Ceruleans found were in the Ohio Hills physiographic area of southwestern PA, another 30% were in the Ridge and Valley, and the remainder were scattered through the Allegheny Plateau and Piedmont regions. The Delaware River and adjacent highland population is contiguous with a large population in northwestern New Jersey, and the small population at Allegheny Reservoir is also probably much larger and contiguous with the Alleghany State Park area population in New York. In extreme southeastern Pennsylvania, the small population along White Clay Creek is contiguous with a similar number of birds found in adjacent Delaware. Undoubtedly many more Cerulean Warblers occur throughout Pennsylvania, in areas not searched during CEWAP.

Habitat data were reported for 178 of the Pennsylvania sites. Sixty-eight sites (38%) and 178 individual Cerulean Warblers (33%) were in riparian or other bottomland habitats (Figure 28), with an additional 155 birds (28%) at 57 dry slope or ridgetop sites.

(Continued on page 41)



Map 25. Cerulean Warbler populations in Pennsylvania. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 16. Important areas for breeding Cerulean Warblers in Pennsylvania.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
42	Juniata River and vicinity	Huntington, Blair	Riparian	740–830
40	Delaware River Valley	Pike, Monroe	Riparian, upland	335–990
37	Moraine State Park	Butler	Dry slope, lake margin	1200–1550
32	Jennings Environmental Center	Butler	Dry slope	1220
29	Peter's Mountain and State Game Lands	Dauphin	Dry slope, lake margin	700–1320
23	Brady's Run County Park	Beaver	Dry slope	1000
22	Forbe's State Forest and vicinity	Fayette	Dry slope	1500–2700
20	Duff Park and Boyce Park	Westmoreland	Dry slope, riparian	940–1360
20	Ten Mile Creek and vicinity	NE Greene	Riparian, dry slope	820–1000
19	Sewickley Heights Park	Allegheny	??	900
18	Ryerson Station State Park and vicinity	W Greene	Riparian, upland	1000–1200
17	Michaux State Forest	Adams, Cumberland	Dry slope	1475
15	Crooked Creek Lake Park, Cochran's Mills	Armstrong	Dry slope, riparian	840
14	Delaware State Forest areas	Pike, Monroe	Dry slope	1800–2000
11	Lower Susquehanna River	York	Riparian	225–325
11	Harrison Hills Park	Allegheny	Dry slope	??
10	Ohiopyle State Park and vicinity	Fayette	Dry slope, mesic slope	1950–2135
10	Kinzua Bay, Allegheny Reservoir	Warren, McKean	Dry slope	500
10	Perry, Dunkard Townships	SE Greene	Riparian	1000–1100

The most commonly reported tree species at 172 occupied sites included oaks, maples, and sycamore (Figure 29). Riparian sites throughout the state were dominated by sycamores, with black cherry, black locust, tulip tree, white ash, and maples frequently reported. Dry upland sites reported white oak, red oak, black cherry, and maples as the most frequent trees, whereas various combinations of maples, oaks, tulip tree, and cherry predominated at mesic upland sites.

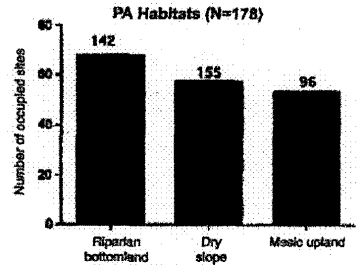


Figure 28. Habitat classifications at sites with Cerulean Warblers in Pennsylvania. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

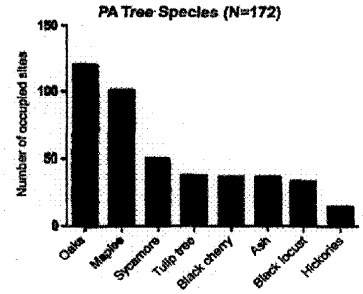


Figure 29. Predominant tree species reported at occupied sites in Pennsylvania. "N" equals number of sites with tree species reported by CEWAP participants.

Rhode Island

No birds observed.

South Dakota

CEWAP participants observed 3 ceruleans at two locations in South Dakota. Two birds were noted at Newton Hills State Park in Lincoln County and 1 bird was observed at Wuabay National Wildlife Refuge in Day County. The Newton Hills Park birds were in 100-ft. canopy riparian forest dominated by cottonwood, silver maple, elm, and ash, whereas the Wuabay NWR bird was in swamp forest of oaks, basswood, and elm.

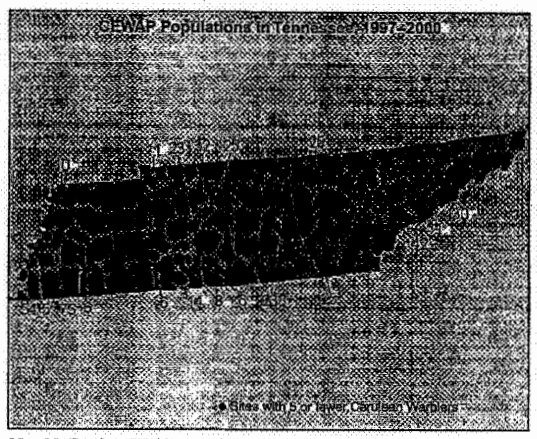
Tennessee

The *Atlas of Breeding Birds of Tennessee* (Nicholson 1997) reported Cerulean Warblers from 14% of "priority atlas blocks" statewide. Much of our data from Tennessee was provided by Melinda Welton of The Nature Conservancy who coordinated intensive surveys of several portions of the state. CEWAP surveys yielded 1,210 birds at 485 sites (Map 26).

By far the most important region in the state for Ceruleans is the Cumberland Mountains of Campbell, Scott, and Morgan Counties, northwest of Knoxville. In particular, the Royal Blue Wildlife Management Area (42,000 ac) supports at least 430 birds and Frozen Head State Park (8,000 ac) and vicinity supports at least 142 birds (Table 17); these represent the only two areas of publicly owned lands within this large mountainous region. Undoubtedly, many more Ceruleans occur on private lands not surveyed. Birds in this area were found in mesic upland forest dominated by oaks, hickories, and tulip poplar, mostly between 2,000 ft. and 3,000 ft. elevations.

Another very important area is the Center Hill Lake region of DeKalb and Putnam Counties in central Tennessee. In this area, most Ceruleans were found along the more-forested northern shore and surrounding hills, including Edgar Evins State Park, Floating Mill, and Mine Lick Creek. A significant but unknown proportion of these birds were on public recreation area land owned by the Army Corps of Engineers. In summer 2000, an additional 34 birds were located on the escarpment further north in Putnam County. These latter individuals were in relatively young forest, where taller tulip poplars formed an uneven emergent canopy (Welton, pers. comm.).

(Continued on page 42)



Map 26. Cerulean Warbler populations in Tennessee. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 17. Important areas for breeding Cerulean Warblers in Tennessee.

Number of birds	Site location	County (s)	Habitat (s)	Elevation (ft)
430	Royal Blue Wildlife Management Area and vicinity	Campbell, Scott	Mesic slope	2000
142	Frozen Head State Park and vicinity	Morgan, Scott	Mesic slope	2100–3200
238	Center Hill Lake, Edgar Evins State Park and vicinity	DeKalb, Putnam	Mesic slope, dry slope	800–900
75	Chickasaw National Wildlife Refuge	Lauderdale	Riparian, swamp forest	240–250
54	Meeman-Shelby Forest State Park, Mississippi Delta	Shelby	Upland, bottomland	240-300
32	Cheatham Wildlife Management Area	Cheatham	Dry slope, mesic slope	500–725
28	Natchez Trace Parkway, National Park	Williamson	Dry slope, mesic slope	865–900
25	Mill Creek Rd.	Putnam	Dry slope	1100–1350
15	Reelfoot National Wildlife Refuge	Hayward, Obion	Bottomland	290
12	Bear Knob	Overton	Dry slope	1360
11	Westvaco Timberlands	Stewart	Dry slope, mesic slope	475–600

A third important region of the state for Cerulean Warblers is along the Mississippi River, where relatively large numbers were found at Chicksaw National Wildlife Refuge (75 birds) and Meeman-Shelby Forest State Park north of Memphis (54 birds). Birds at Chickasaw NWR occupied bottomland hardwood forest dominated by cottonwoods. Additional individuals were found on bluffs along the Mississippi River at Fort Pillow State Park.

Overall in Tennessee, nearly 400 of the 467 sites with reported habitat conditions were classified as mesic slope (Figure 30). These 400 sites accounted for 65% of Cerulean observations, whereas dry slopes supported 20% and riparian/bottomland habitats accounted for the remaining 13%.

For 87 sites where tree species data were reported, the most frequently observed species included oaks (mostly white oak and scarlet oak), hickories, and tulip poplar (Figure 31). Bottomland hardwood sites were dominated by cottonwood, American sycamore, and tulip-poplar.

The Cerulean Warbler population in the Northern Cumberland Plateau region of Tennessee represents the single largest concentration of this species reported from anywhere within it's range (see Table 1). Even though many of these birds are on state-owned land, Melinda Welton reports potential threats from surface mining in this area. Royal Blue is a 42,000 acre Wildlife Management Area owned and managed by the Tennessee Wildlife Resources Agency. Tennessee Valley Authority (TVA), however, owns the surface mineral rights to this land and is currently exercising those rights. A mining permit was issued in September 1999 that would directly impact 600 acres. A 100 acre clearcut in preparation for mining was completed in September 2000. Discussions with TVA are currently underway concerning the advisability of proceeding with this mining permit and future permits on Royal Blue. The future of Cerulean Warblers on vast acreages of private land, such as large areas owned by Champion-International, are even more uncertain.

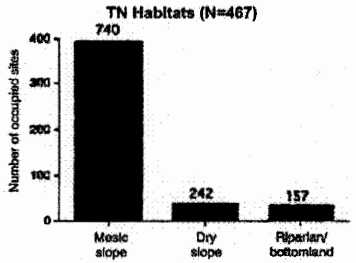


Figure 30. Habitat classifications at sites with Cerulean Warblers in Tennessee. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

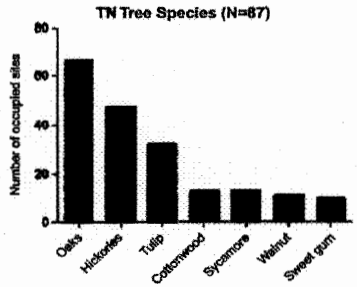


Figure 31. Predominant tree species reported at occupied sites in Tennessee. "N" equals number of sites with tree species reported by CEWAP participants.

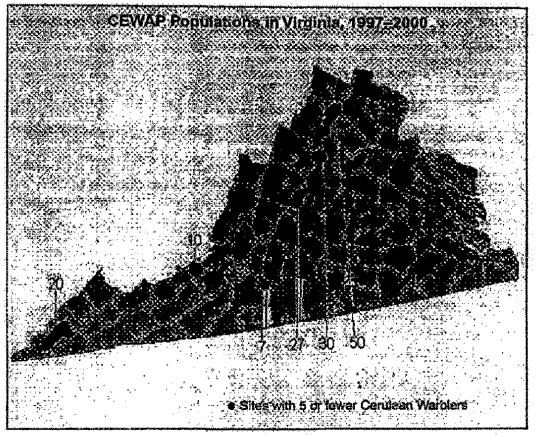
Virginia

The *Virginia Breeding Bird Atlas Project* recorded Cerulean Warblers on 88 blocks primarily in the western and northern mountains, and Shenandoah Valley.

CEWAP participants documented 152 birds on 64 (61%) of 106 sites visited (Map 27). A majority of birds found were clustered in three portions of the Blue Ridge — the Pocosin Cabin area of Shenandoah National Park with 30 Ceruleans, the Reeds Gap-Humpback Mountain area with 27 birds, and the north section of Shenendoah National Park and Appalachian Trail north of U.S. Highway 522 with a total of 44 Ceruleans detected (Table 18). An additional 20 Ceruleans are estimated to occur on the Clinch Ranger District of Jefferson National Forest in extreme western Virginia. Undoubtedly many more Cerulean Warblers occur in unsurveyed portions of the Northern Cumberland Plateau and on the Ridges west of Shenendoah Valley.

For 60 sites with reported habitat conditions, 41 (68%) were classified as mesic cove forest and 18 (30%) dry slope. Mesic cove forests supported 67 (46%) Ceruleans while dry slope forests supported 78 (53%) (Figure 32). The only birds found away from the mountain ridges were two individuals at Riverbend Park on the Potomac River, in cottonwood-silver maple-boxelder forest.

For 61 sites where tree species data were reported, the most commonly recorded species were oaks (mostly northern red oak, chestnut oak and white oak), maples (mostly red maple), and hickories (shagbark and mountain hickory), with tulip tree, white ash, and black locust also frequently reported (Figure 33).



Map 27. Cerulean Warbler populations in Virginia. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 18. Important areas for breeding Cerulean Warblers in Virginia.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
30	Shenendoah National Park—Pocosin Cabin Area	Greene	Dry slope	2700–3200
29	Appalachian Trail, N. of US Highway 522	Warren	Mesic cove forest	1200-2000
27	Blue Ridge Parkway—Reeds Gap, Humpback Mtn. Area	Augusta, Nelson	Dry slope	2332–3600
20	Clinch Ranger District, Jefferson National Forest	Lee, Scott, Wise	Dry slope, cove forest	2420–3370
15	Shenendoah National Park—north section	Warren, Rappahannock	Dry slope, cove forest	1950–2800
10	Doe Creek area—Rt. 613	Giles	Dry slope	3100-3400
7	Blue Ridge Parkway, Flat Top Mountain (Jefferson NF)	Bedford	Mesic cove forest	2610–2700
2	Riverbend Park	Fairfax	Riparian	160

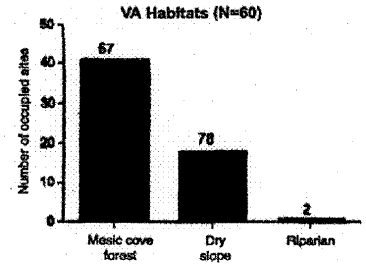


Figure 32. Habitat classifications at sites with Cerulean Warblers in Virginia. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants

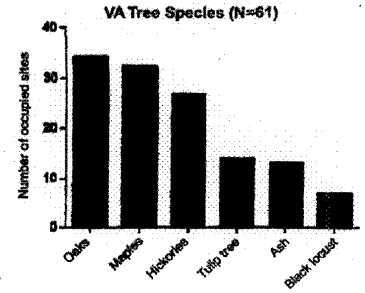
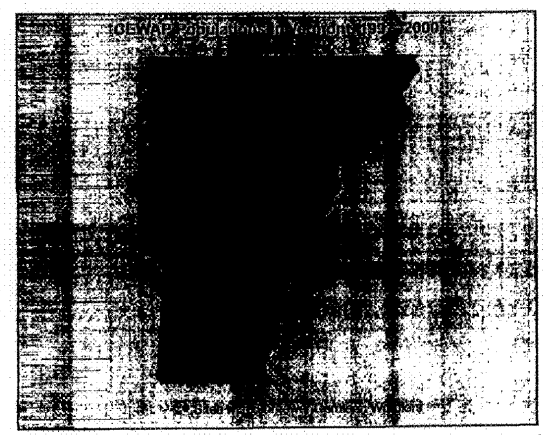


Figure 33. Predominant tree species reported at occupied sites in Virginia. "N" equals number of sites with tree species reported by CEWAP participants.

Vermont

The *Atlas of Breeding Birds of Vermont* (Ellison 1985) reported Ceruleans from only two atlas blocks statewide.

CEWAP participants observed only 1 individual on 1 of 3 sites visited in 1997 and 1998. The bird was observed along the Lamoille River near the town of Milton in Chittenden County. In summer 2000, however, the previously vacant site near the Quebec border had a singing Cerulean Warbler, and a third location was obtained via Chris Rimmer through the Vermont birding listserve. All known sites in the state are along the east shore of Lake Champlain (Map 28).

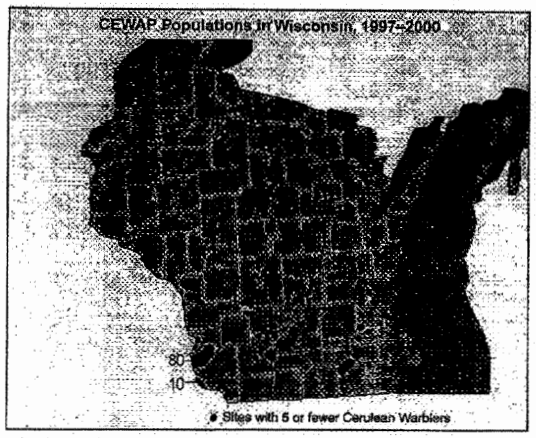


Map 28. Cerulean Warbler populations in Vermont. Polygons represent clusters of sites where ceruleans were found in close geographic proximity.

Wisconsin

Hamel 2000 reports the following regarding the Wisconsin Breeding Bird Atlas: "Breeding Cerulean Warblers recorded as confirmed, probable, or possible in 3.8% of 3,084 blocks (5 km x 5 km each) surveyed throughout the state, with most birds being found in the southern half of the state in upland hardwood oak-hickory or maple-beech-birch forests (Jennifer Davis, 15 March 2000, pers. comm. to Stephen Lewis)." CEWAP surveys were concentrated in the southern one-third of the state, however, Ceruleans were also noted in the west-central and northeast portions of the state.

CEWAP participants tallied 174 Ceruleans at 59 (98%) of 60 sites surveyed (Map 29). Three sites supported more than 20 birds each—the Lower Wisconsin River and Wyalusing State Park in Grant County, and Lake LaGrange in Walworth County (Table 19). Sixteen additional birds were found in the Lower Kickapoo River area, just to the north of the Wisconsin River.



Map 29. Cerulean Warbler populations in Wisconsin. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

Table 19. Important areas for breeding Cerulean Warblers in Wisconsin.

Number of birds	*Site location*	*County (s)*	*Habitat (s)*	*Elevation (ft)*
31	Lower Wisconsin River	Grant	Riparian, mesic slope	620-740
24	Wyalusing State Park	Grant	Dry slope, mesic slope	650-1150
20	Lake LaGrange	Walworth	Mesic slope	885-1000
16	Lower Kickapoo River Valley	Crawford	Riparian, mesic slope	690-900
8	Kettle Moraine State Forest	Jefferson	Dry slope	880-890
8	Nelson Dewey State Park	Grant	Riparian	900
6	Blue Mounds State Park and vicinity	Iowa, Dane	Mesic slope	1100-1400
5	Plum Creek	Pierce	Mesic slope	840-900
4	Kinnickinnic State Park	Pierce	Bottomland	900
4	Goat Ranch Rd.	Eau Claire	Mesic forest	1000

Of 56 sites with reported habitat conditions, over half were classified as mesic upland forest, which accounted for 104 (56%) of the Ceruleans observed (Figure 34). The 20 bottomland riparian sites supported 53 (31%) birds.

For 56 sites with known tree species, the most common trees were oaks, maples, and hickories (Figure 35). Black Walnut and basswood also were frequently reported, and bottomland riparian sites often had cottonwoods and elms.

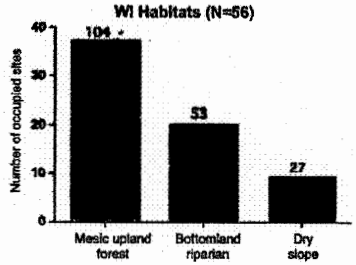


Figure 34. Habitat classifications at sites with Cerulean Warblers in Wisconsin. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

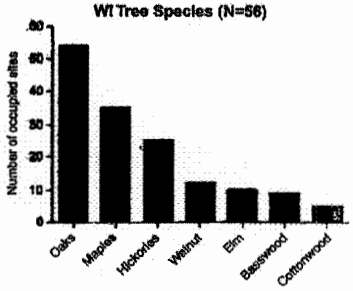


Figure 35. Predominant tree species reported at occupied sites in Wisconsin. "N" equals number of sites with tree species reported by CEWAP participants.

West Virginia

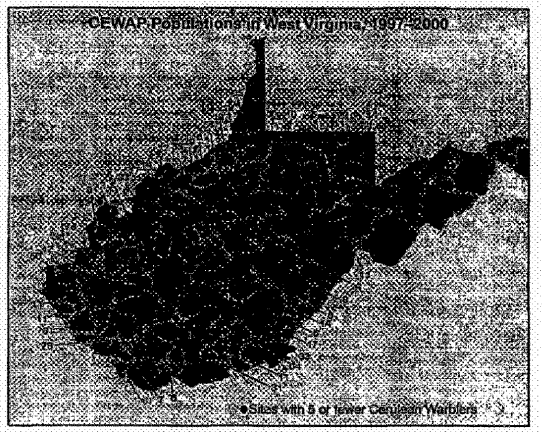
Hamel (2000) reports the following for West Virginia: "Atlas work shows the birds to be widespread and common in the Western Hills, scarce or missing in the Allegheny Mountains Region, and to occur sparingly the Ridge and Valley Region. In the Ridge and Valley Region of West Virginia, the birds are limited to river valleys. Birds were recorded on 258 blocks in West Virginia (Buckelew and Hall 1994)."

CEWAP coverage was extensive in West Virginia with sites located in most counties (Map 30). A particular effort was made to survey state-owned parks and wildlife management areas, under the supervision of Drew Jones at the West Virginia Department of Natural Resources. Even so, vast areas went unsearched, and total Cerulean Warbler populations are very difficult to determine.

In West Virginia, 1,124 ceruleans were reported from 254 (74%) of 345 sites surveyed during CEWAP. Numerous sites supported more than 20 birds, with the most populated sites being the New River Gorge and Garden Ground Mountain area with 94 Ceruleans found, Kanawha State Forest with 78 birds, Guyandotte Mountain and vicinity with 78 birds, and Louis Wetzel Wildlife Management Area with 65 birds (Table 20). Cerulean Warblers were most widely distributed throughout the Ohio Hills physiographic area, with smaller populations scattered through the Ridge and Valley. They were rarely found in the large forested regions of the Allegheny Mountains, such as on the Monongahela National Forest. Coverage was poor in the Cumberland Plateau region (no sites surveyed in Mingo County) and in the Panhandle region.

A significant portion of the Ceruleans found in West Virginia were on the many state-owned lands that were surveyed. In all 28 tracts of state land supported 456 singing male Ceruleans. Although this may be a small fraction of the total state population, it may represent a reasonable estimate of the number of birds under potential management or protection by the state of West Virginia. Besides the Kanawha State Forest and Louis Wetzel WMA, important state lands include Beech Fork State Park (50 pairs), Cooper Rock State Forest (23 pairs), and Ritchie Mines WMA (22 pairs).

More than half of the sites reporting habitat data were classified as dry slope/ridgetop (Figure 36). The dry slope/ridgetop sites accounted for 700 (65%) cerulean sightings. The remaining 35% of sites were nearly equally divided between moist slope/cove habitats and bottomland/riparian habitats.



Map 30. Cerulean Warbler populations in West Virginia. Polygons represent clusters of sites where ceruleans were found in close geographic proximity. These do not necessarily match specific areas listed in the corresponding state table.

The primary tree species noted on 221 occupied sites statewide were oaks, maples, hickories, and tulip tree (Figure 37). Forests with Cerulean Warblers were extremely diverse. At riparian sites, sycamores were dominant, with cottonwoods, white oak, red oak, various maples, boxelder, tulip tree, and black locust also frequently reported. Dry slopes and ridgetops were dominated by white oak, red oak, scarlet oak, chestnut oak, shagbark, mountain, and pignut hickories, and red maple, whereas mesic slopes and cove forests were dominated by white oak, red oak, sugar maple, tulip tree, with American beech, basswood, and black cherry also common (Figure 37).

In West Virginia, our field assistants also collected detailed data on tree-species use by foraging or singing Cerulean Warblers in 1997. Observations of foraging and singing birds at upland sites (N = 150) indicated frequent use (10-17%) of chestnut oak, red oak, maples, hickories, and white oak, with lesser use of tulip tree, black oak, and 11 other tree species (Figure 38).

Table 20. Important areas for breeding Cerulean Warblers in West Virginia.

Number of birds	Site location	County (s)	Habitat (s)	Elevation (ft)
94	New River Gorge—Garden Ground Mountain Area	Fayette, Raleigh	Dry slope, riparian	1330–3000
78	Kanawha State Forest	Kanawha	Mesic cove forest, dry slope, riparian	800–1500
78	Guyandotte Mountain and vicinity	Raleigh, Boone, Wyoming	Upland forest	2500–3230
65	Louis Wetzel WMA	Wetzel	Dry slope, riparian	823–1500
50	Beech Fork State Park	Wayne	Lake margin, dry slope	625–940
50	North Bend State Park and Rail Trail, Mountwood Park	Ritchie, Wood	Dry slope, cove forest, riparian	700–1110
40	Greenbrier River drainage and adjacent mountains	Greenbrier	Dry slopes	2100–3500
36	Fork Creek WMA—Little Coal River and vicinity	Boone, Lincoln, Kanawha	Riparian, mesic slope	875–1130
28	Murphy Preserve	Ritchie	Moist cove forest, dry slope, riparian	900–1085
23	Coopers Rock State Forest	Preston, Monongalia	Mesic slope, dry ridgetop	2060–2280
22	Ritchie Mines WMA	Ritchie	Dry slope	1000–1120
19	Dutch Ridge	Kanawha, Clay	Dry slope	1150
18	Stupton WMA	Calhoun, Gilmer	Dry slope	900–1000
18	Maxwell Ridge	Doddridge	Dry slope	1250
17	Wallback WMA	Kanawha	Riparian, dry slope	640–1100
16	Sand Hill WMA	Wood, Ritchie	Dry slope, mesic slope	1100–1300
14	Rowlesburg	Tunnelton	Dry slope, bottomland	1525–2100
14	Cedar Creek State Park	Gilmer	Dry slope	750–1225
13	Amherst—Plymouth WMA	Putnam	Riparian, mesic slope, dry ridgetop	560–1000
13	Rowlesburg—Laurel Mountain	Preston	Dry slope, bottomland	1440–2100
12	Mud River	Boone	Riparian, moist cove forest	750
11	McDonough	Wood	Dry slope, mesic slope	700–820
11	Bluestone State Park	Summers	Riparian	2200
10	Panther State Forest	McDowell	Upland forest	??
10	Nathaniel Mountain	Hampshire	Dry slope	2600–3000

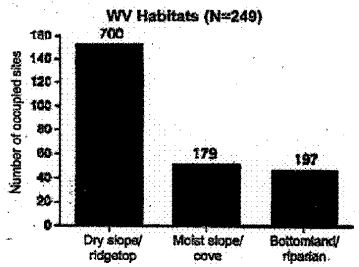


Figure 36. Habitat classifications at sites with Cerulean Warblers in West Virginia. Numbers of individual Cerulean Warblers recorded in each habitat type are noted above the bars. "N" equals number of occupied sites with habitat data reported by CEWAP participants.

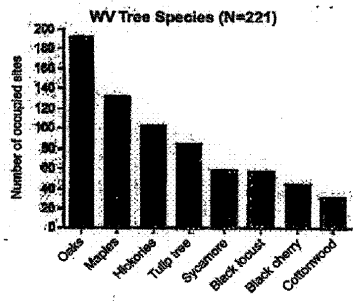


Figure 37. Predominant tree species reported at occupied sites in West Virginia. "N" equals number of sites with tree species reported by CEWAP participants.

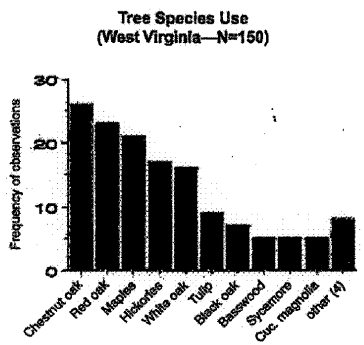


Figure 38. Trees species used by Cerulean Warblers for foraging and singing at upland sites in West Virginia.

DISCUSSION AND CONCLUSIONS

The Cerulean Warbler Atlas Project produced a list of several hundred sites that are important to this species in every state throughout its range. Although these represent a critical first step in conserving key populations of Cerulean Warblers in each region, coverage and completeness of the atlas surveys was highly variable in different parts of the species' range. In general, coverage near the edge of the Cerulean's range was probably most complete and accurate. For example, it is likely that most of the existing populations and sites were identified in New England, New Jersey, most of New York, Illinois, Alabama, Georgia, and Minnesota. In contrast, sites identified in West Virginia, Pennsylvania, Ohio, Kentucky, and much of Tennessee most likely represent only a small fraction of the populations that actually exist in these states. It is extremely difficult for us to assess the completeness of CEWAP in most states without much further fieldwork and consultation with local experts.

To compare with numbers of birds found by CEWAP participants, very crude estimates of Cerulean Warbler total populations can be calculated from Breeding Bird Survey relative abundances in each physiographic area. The BBS may provide landscape-level density estimates that can be converted into regional population estimates if the following assumptions are made:

1. BBS routes constitute a random sample of the landscape;
2. habitats in question are fairly evenly distributed across the region; and
3. each bird species has a relatively fixed average detection distance at BBS stops, within which a reasonable estimate of the number of individuals present may be obtained.

An entire BBS route composed of 50 stops, each consisting of a 0.25 mi. (400 m)-radius circular count, potentially surveys roughly 25 km^2 of heterogeneous landscape. Based on a study by Emlen and DeJong (1981), we may estimate the average maximum detection distance for typical forest birds to be roughly 125 m—for these species a BBS route samples an effective area of 2.5 km^2. If Cerulean Warblers are detected routinely out to 200 m at each stop, the effective area surveyed is increased to 6.3 km^2.

Population estimates for a physiographic area are then calculated as the average landscape-level density (number of birds per route * effective area sampled by each route) multiplied by the size (km^2) of the physiographic area. Note that landscape-level densities are not assumed to be similar to species densities in uniform optimum habitats, but rather reflect habitat heterogeneity at larger scales as sampled by BBS routes. Because the great majority of detections on typical BBS routes are of singing or displaying males, the population estimate derived from this method is assumed to represent numbers of breeding pairs.

Applying this methodology produces a range of estimates for Cerulean Warblers throughout their range that is usually much larger than that detected by CEWAP (Table 21). In fact a global population estimate of 85,000 to 214,000 breeding pairs would indicate that CEWAP found fewer than 10% of existing birds. As expected, the largest proportion of the total population occurs in the Ohio Hills and Northern Cumberland Plateau, where an average of 2 to 3 Cerulean Warblers are detected annually on every BBS route in the last decade. In West Virginia alone, the total population is almost certainly in the 10,000s, and may be close to 100,000 pairs. In physiographic areas near the periphery of the Cerulean's range; however, the number of birds found is not greatly different from that estimated using BBS – for example, Southern New England, Lower Great Lakes Plain.

Our atlas is therefore most valuable in areas away from the center of the species' distribution. Populations and sites identified in most states may serve as the nucleus for a conservation strategy that should include continued monitoring, management, and possible acquisition of currently unprotected sites. In the center of the range, specific sites may also be important for long-term monitoring and to provide a sample of the range of conditions required by this species. Because many sites identified are on public lands, these may also serve as core areas for sustaining regional populations. Where Cerulean Warblers are more continuously distributed and do not lend themselves to a "circles on maps" atlas technique, a modeling approach, taking into account different densities in different habitats, may be necessary to identify the most important areas for sustaining the bulk of the population.

Table 21. Cerulean Warbler populations size estimates for Partners In Flight physiographic areas, based on extrapolations from BBS relative abundance. Range of estimates based on assumptions of effective area covered by each BBS route between 6.3 km² and 2.5 km².

Physiographic Area Name	*Area #*	*BBS Population Range (pairs)*
South Atlantic Coastal Plain	3	40–100
East Gulf Coastal Plain	4	330–840
Southern New England	9	90–225
Mid-Atlantic Piedmont	10	600–1,500
Mid Atlantic Ridge and Valley	12	2,550–6,400
Southern Ridge and Valley	13	95–240
Interior Low Plateaus	14	7,300–18,500
Lower Great Lakes Plain	15	210–530
Upper Great Lakes Plain	16	360–950
Northern Ridge and Valley	17	2,000–5,200
St. Lawrence Plain	18	150–400
Ozark-Ouachita Plateau	19	1,950–4,900
Boreal Hardwood Transition	20	1,850–4,600
Northern Cumberland Plateau	21	22,700–57,200
Ohio Hills	22	37,600–94,700
Southern Blue Ridge	23	1,250–3,100
Allegheny Plateau	24	4,450–11,200
Prairie Penninsula	31	750–1,900
Osage Plains	33	85–210
West Gulf Coastal Plain	42	110–275
Mid Atlantic Coastal Plain	44	25–65

Habitat and Area Reqirements

Primary habitat for this species is most often described as mature deciduous forest, typified by structurally mature hardwood species in mesic or floodplain conditions with a closed or semi-open canopy. Habitat descriptions in the literature often have emphasized moist woodlands in both upland and bottomland forest (e.g. Schorger 1927, DeJong 1976) in different regions. Hamel (2000) summarizes the broad range of habitat descriptions that exist for this species, concluding that Cerulean Warblers may be somewhat opportunistic in seeking the most mature forest conditions available in each region. Dominant tree species and understory species described in the literature also tend to vary by region; tree size is thought to be primary and tree species of secondary importance (Hamel 2000).

Habitat data from CEWAP confirm the wide range of habitat types used by Cerulean Warblers throughout their range. Large populations occur in both riparian bottomland forests and in a variety of upland situations. Perhaps under-appreciated in past accounts is the importance of dry slope and ridgetop habitats to Cerulean Warblers, not only in the Appalachian ridges, but also in New England and the upper Midwest. Although many of these slopes and ridges are in relatively close proximity to major river valleys, suggesting that populations may "spill" up the slopes from the bottomlands, this is not always the case. For example, dry ridges seem to be the primary habitat of this species in many parts of the Blue Ridge of Virginia and North Carolina. The most important feature of this habitat type, perhaps, is the presence of mature oak-hickory forest, with white oak, red oak, black oak, scarlet oak, and chestnut oak frequently mentioned as dominant.

Throughout much of the Southeast and northwards through the Appalachians, a very important habitat for Cerulean Warblers continues to be mesic upland forest, including mixed mesophytic or cove forest. CEWAP confirmed the large populations that occur wherever large tracts of this habitat exist, and also the great diversity of tree species present at these sites. Tulip tree appears to be a common indicator of Cerulean habitat in many of these areas, in addition to the variety of oak species and often maples.

Away from the Appalachian Mountains, a majority of Cerulean Warbler populations seem to occur in mature riparian or other bottomland forests along large or

medium-sized waterways. Only a few pockets of Ceruleans persist in the Mississippi River Valley proper, but a number of tributaries support the bulk of the species in the Midwest Region. Other important riparian areas include the Delaware River Valley, Roanoke River in Virginia, middle Hudson River, and forested wetlands of the Lake Ontario Plain in New York. A common feature of these riparian forests, nearly throughout the range, is the presence of mature stands of sycamores.

Hamel (2000), as well as other authors, have struggled to find a common denominator among the varied descriptions of Cerulean Warbler habitat structure and tree-species use. A tall, but broken, canopy seems to be the most frequently mentioned feature, along with large area requirements. Indeed, a shared feature of the three very different habitat types used by a majority of Cerulean Warblers may be the irregular canopy structure. On dry ridges, tall oaks form a linear "internal edge," where warbler territories may look out over the surrounding canopy. This same linear canopy edge is a prominent feature of mature riparian forests, especially where tall sycamores form an emergent layer above the other trees. On slopes with a diverse mixed mesophytic forest, the presence of trees with a variety of canopy structures is probably key to providing the same sort of canopy-edge effect desired by Cerulean Warblers. Melinda Welton's observation of Ceruleans inhabiting secondary forest patches in Tennessee, where tulip trees form a broken emergent canopy, suggests that this tree may be an important structural ingredient in otherwise closed-canopy oak forests.

Landscape situation and context has a strong bearing on whether otherwise suitable breeding habitat will actually contain warblers (Hamel 1992). Cerulean Warblers are thought to prefer large, contiguous tracts of deciduous forests for breeding (Bond 1957, Hamel 1981, Robbins et al. 1992). Hamel (2000) notes the geographic variation and inconsistency of published references to area sensitivity, however. For example, this species seems to prefer large wooded tracts of at least 50-75 acres, and typically avoids isolated woodlots less than 20-25 acres in size in Ohio (Peterjohn and Rice 1991). In other areas, stands greater than 526 ha (1,300 acres) are considered optimal for Cerulean Warblers (Evans and Fischer 1997).

CEWAP results, although providing only crude estimates of habitat-patch sizes occupied by Cerulean Warblers, do suggest geographic variation in degree of area sensitivity. Whereas a large number of individuals occurred in extensive forest tracts in all regions, the proportion of birds in these large patches varied among the regions. In the Southeast, nearly all birds found were in forests ≥ 1,000 acres, suggesting strong area sensitivity, whereas in the Northeast, a substantial proportion of populations were in much smaller forests. Further defying the conventional wisdom on Cerulean Warblers, a growing body of research in eastern Ontario suggests that birds there thrive in patches of secondary maple forest as small as 25 acres (Jason Jones, pers. comm). Because quantitative studies of area requirements in Cerulean Warbler come primarily from the Mid-Atlantic and southeastern states (Robbins et al. 1989, Hamel 1992), rangewide assumptions of extreme area sensitivity may be exaggerated.

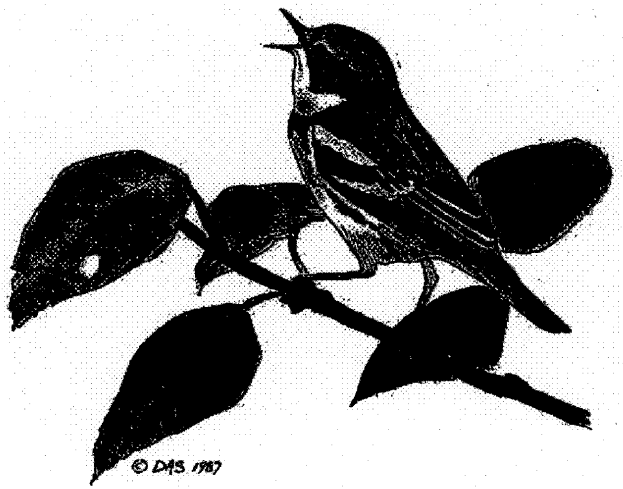
Monitoring and Research Needs

This Atlas of Cerulean Warbler Populations may be considered a first step in identifying the key sites and habitats required to protect this species into the future. For a successful conservation strategy that ensures the maintenance of healthy breeding Cerulean Warbler populations throughout the species' range, we recommend the following monitoring and research components:

- Repeat surveys of the 73 primary and secondary sites identified in Table 1 and 2, perhaps every five years, to monitor health of known, important populations.
- Quantitative studies of reproductive success and population turnover in upland vs. bottomland habitats, specific to each region.
- Quantitative studies of regional area sensitivity, perhaps using GIS analyses of habitat patches identified in CEWAP.
- Habitat suitability modeling to determine new and potential population sites, especially in areas where CEWAP was less effective.
- Quantitative studies of response to management options, such as canopy thinning, selective logging, or wilderness protection.
- Determination of potential threats to important CEWA populations, such as from mountaintop removal mining, residential development, or logging.
- Determine pattern of land-ownerships at important areas in each region: devise alternative strategies for conservation and management on public, vs industrial, vs private lands.

ACKNOWLEDGMENTS

The following individuals provided support and advice over and above regular CBWAP participation or provided us with unpublished data; Amanda Dey (NJ Endangered and Non-game Department), Bruce Robertson (Cornell Lab of Ornithology), Chuck Hunter (USFWS Region 4), Dan Brauning (PA Game Commission), David Buehler (University of Tennessee), Drew Jones (WV Department of Natural Resources), Diane Pence (USFWS), Diane Tessaglia-Hymes (Cornell Lab of Ornithology), Jane Fitzgerald (Partners In Flight), Jason Jones (Queens University), Jeff Wells (National Audubon Society), Lise Hanners (Nature Conservancy), Melinda Welton (Nature Conservancy), Paul Hamel (US Forest Service), Randy Dettmers (USFWS), Rebecca Palmer (Cornell Lab of Ornithology), Roger Slothower (Cornell Lab of Ornithology), Russ McClain (WV Department of Natural Resources), Scott Robinson/Glendy Vanderah (University of Illinois Urbana/Champagne), Steve Lewis (USFWS Region 5), Tom Jasikoff (Montezuma Wildlife Refuge).



LITERATURE CITED

Andrle, R. F., and J. R. Carroll. 1988. *The atlas of breeding birds in New York State*. Cornell University Press, Ithaca, NY.

Bevier, L. R. 1994. *The atlas of breeding birds of Connecticut*. State Geological and Natural History Survey of Connecticut, Bulletin 113.

Brauning, D. W. 1992. *Atlas of breeding birds in Pennsylvania*. University of Pittsburgh Press, Pittsburgh, PA.

Bond, R. R. 1957. Ecological distribution of breeding birds in the upland forests of southern Wisconsin. Ecological Monographs 27:351–84.

Brewer, R., G. A. McPeek, and R. J. Adams, Jr. 1991. *The atlas of breeding birds of Michigan*. Michigan State University Press, East Lansing, MI.

Buckelew, A. R., Jr., and G. A. Hall. 1994. *The West Virginia breeding bird atlas*. University of Pittsburgh Press, Pittsburgh, PA.

Castrale, J. S., E. M. Hopkins, and C. E. Keller, eds. *Atlas of breeding birds of Indiana*. Nongame and Endangered Wildlife Program, Indiana Department of Natural Resources, Indianapolis, IN.

Cecil, R. 1996. Cerulean Warbler *Dendroica cerulea*, *In* Jackson, L. S., C. A. Thompson, and J.J. Dinsmore, eds. *The Iowa breeding bird atlas*, University of Iowa Press, Iowa City, IA.

DeJong, M. J. 1976. The distribution of breeding birds in relation to vegetation in low-land forests of southern Wisconsin. M.S. Thesis. Univeristy of Wisconsin, Madison.

Ellison, W. G. 1985. Cerulean Warbler. *In* S. B. Laughlin and D. P. Kibbe, eds. *The atlas of breeding birds of Vermont*. University Press of New England, Hanover, NH.

Evans, D. E., and R. A. Fischer. 1997. Species profile: cerulean warbler (*Dendroica cerulea*) on military installations in the southeastern United States. Technical Report SERDP–97–12, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Foss, C. R. 1994. *Atlas of breeding birds in New Hampshire*. Audubon Society of New Hampshire, Concord, NH.

Hamel, P.B. 1981. A hierarchal approach to avian community structure. Ph.D. Diss. Clemson University, South Carolina.

Hamel, P.B. 1992. Cerulean Warbler, *Dendroica cerulea*. Pages 385–400 in K.J. Schneider and D.M. Pence, editors. *Migratory nongame birds of management concern in the Northeast*. U.S. Fish and Wildlife Service, Newton Corner, Massachusetts. 400 pp.

Hamel, P.B., F.J. Dirrigl, Jr., G. Hammerson, and D.W. Mehlman (eds.) 1999. Cerulean Warbler (*Dendroica cerulea*). Wings Info Resources / Species Information and Management Abstracts. The Nature Conservancy. Available online: http://www.tnc.org/wings/wingresource/birddata.htm

Hamel, P. B. 2000. Status Assessment: Cerulean Warbler. Prepared for U.S. Fish and Wildlife Service; April, 2000.

Imhoff, T. A. 1962. *Alabama birds*. University of Alabama Press, Tuscaloosa, AL.

Jacobs, B. and J. D. Wilson. 1997. Missouri breeding bird atlas 1986–1992. Natural History Series, No. 6, Missouri Department of Conservation, Jefferson City, MO.

Kahl, R. B., T. S. Baskett, J. A. Ellis, and J. N. Burroughs. 1985. Characterisitics of summer habitats of selected nongame birds in Missouri. Univeristy of Missouri—Columbia College of Agriculture, Agricultural Experiment Station, Research Bulletin 1056:58–60.

LeGrand, H. E., Jr. 1979. Cerulean Warbler colony in Graham County, N.C. Chat 43:20.

Lynch, J. M. 1981. Status of the cerulean warbler in the Roanoke River Basin of North Carolina. Chat 45(2):29–35.

Nicholson, C. P., ed. *Tennessee Breeding Bird Atlas*. University of Tennessee Press, Knoxville, TN.

Palmer-Ball, B. L., Jr. 1996. *The Kentucky breeding bird atlas*. The University Press of Kentucky, Louisville, KY.

Peterjohn, B. G., and D. R. Rice. 1991. *The Ohio breeding bird atlas*. The Ohio Department of Natural Resources, Columbus, OH.

Peterson, R. A. 1995. *The South Dakota breeding bird atlas*. South Dakota Ornithologists' Union.

Robbins, C.S. and E. A.T. Blom. 1996. *Atlas of breeding birds of Maryland and the District of Columbia*. Univ. of Pittsburgh Press. 479pp.

Robbins, C.S., J.W. Fitzpatrick, and P.B. Hamel. 1992. A warbler in trouble: *Dendroica cerulea*. Pages 549–562 in J.M. Hagan III and D.W. Johnston, editors. *Ecology and conservation of neotropical migrant landbirds*. Smithsonian Institution Press, Washington, DC.

Rosenberg, K. V., and J. V. Wells. 1995. Final Report: importance of geographic areas to Neotropical migrants in the Northeast. Prepared for U.S. Fish and Wildlife Service, Region 5; July 1995.

Rosenberg, K. V. and J. V. Wells. 2000. Global perspectives on Neotropical migrant conservation in the Northeast: Long-term responsibility vs. immediate

concern. *In* R. E. Bonney, D. Pashley, R. J. Cooper, and L. Niles (Eds.). *Strategies for bird conservation: The Partners in Flight planning process*. Cornell Lab of Ornithology.

Schorger, A. W. 1927. Notes on the distribution of some Wisconsin birds. Auk 44:235–240.

Veit, R. R., and W. R. Petersen. 1993. *Birds of Massachusetts*. Massachusetts Audubon Society, Boston, MA.

APPENDIX

Appendix 1. List of CEWAP participants from 1997–2000. The names in bold represent paid field assistants.

Ray Adams
Brian Allen
Steve Allen
Kathleen Anderson
Rod Annelin
Richard Armstrong
James Ash
Jennifer Akin
Fred Atwood
Timothy Baird
Nick Barber
Ken Barmore
G. Beaton
Ralph Beli
John Benzinger
Dan Best
Doug Blatny
Brad Blodget
Susan Boettcher
Nicholas Bolgiano
Darcie Bomkamp
W. Brad Bond
D. Bonter
Aileen Boyd
Patrick Boyd
Dan Brauning
Hunter Brawley
Cindy Breedlove
Matthew Bribitzer-Stull
Joseph Brin
Jeff Buecking
Barbara Butler
Lois Butler
Adam Byrne
Ron Canterbury
Rick Cantu
Jacki Carey
Bernie Carr
Joan Carr
John Cecil
Dexter Chafee
Davis Chapman
Allen Chartier
Dwight & Ana Chazar
John Churchill
Lathe Claflin
Roger Clifford
Mary Clinton
Bruce Cohen
David Corsini
Linda Crabtree
Julie Craves
Rickie Crone
Gianie Cronenberger
John Cruzan
Paul Cypher
Darney
Dale Davis

David Davis
Tom Davis
Deana Dawson
Bara Dean
John DeMary
Tom Demeo
Melissa Dennison
Jenny Dickson
Kara Donovan
Carol Doscher
Sam Droege
Douglas Dwyer
Tom Eckert
Jocelyn Elkenburg
Karen Eldestein
Michael Elsea
Russell Emmons
Bill Evans
David Ewert
Bruce Fall
Victor Fazio
Sam Febba
John Fedak
Gary Felton
Bob Ford
Chip Franke
Dick Franz
Carl Freeman
Aaron Gabbe
Natalia Garcia
Paula Gills
Heather Gockley
Charolette Goedache
Rod Goforth
Michelle Goldsborough
Jim Grankland
Jane Graves
Mark Greene
Ralph Grundell
James Grundy
Carol Guba
Tom Hall
Paul Hamel
Lise Hanners
Nancy Harple
Bob Hartmon
Larry Hedrick
Sheldon Henderson
Joey Herron
Anthony Hertzel
Paul Hess
Michael Hill
Ron Hoff
Karen Holmes
Marjorie Howard
Amy Howe
Deinne Huggelt
Chuck Hunter

Marc Ingramm
Rainy Inman
Harriet Irwin
Venkatesh Iyengar
John Jacobs
Doug James
Bob Janssen
Margaret Jewett
Mark Johns
Drew Jones
Jason Jones
Peter Jones
William Jones
Steven Joule
Steve Kelling
Art Kenaell
Terry Kerns
Michael Kielb
C. Lawrence King
Tim Kippenberger
Nathan Kleus
Geo Kloppel
David Knapp
Chris Knoll
Ray Koppi
Yulee Larner
Laurie Larson
Jack Lash
Thomas LeBlanc
Rona Lanchan
Fred Lesher
Josh Lipton
Robert Long
Jim Lowe
Judy Lund
JM Lynch
Glenn Lynn
Smoot Major
Michael Marks
Bill Martinus
May
Mark McConeughy
David McConnell
Vickie McDonald
C. McGrath
Francis McMenemy
John McNeely
Frances McVay
Doug McWhirter
Jerry McWilliams
Peter Mehring
Scott Meier
Mike Menconi
Ken & Cassandra Middleton
Dorothy Miller
Kip Miller
Susan Miller

Dennis Miranda
Donna Mitchell
Laura Mitchell
Neil Moore
Mike Morgante
Eugene Morton
Terry Mosher
Greg Muchay
James Murphy
Rod Murray
Rich Nicholls
Chuck Nicholson
Lisa Nutt
Darrien O'Brien
Karl Overman
Lydia Page
Kristopher Palermo
Glenn Palmgren
Al Parker
Walter Pawloski
Lynda Perry
David Peters
Anne Pidgeon
Ron Porter
Diane Potter
Doug Powless
Craig Provost
Bill Purcell
Charles Quinlan
Grace Randolph
Mary Ratliff
Bill Reddinger
Jack Reisoehl
Lorraine Reynolds
Jean Richter
Matt Ricketts
Chris Rimmer
Joseph Robb
Mark Robbins
Don Roberson
Peter Robinson
Scott Robinson
Peter Rodewald
Jennifer Rood
Stephen Ross
Norma Rudesill
Ron Rumkies
Maragaret Ruzk
Bill Sanderson
Steve Santner
William Schieble
Russ Schipper
John Schukman
Chris Schumacher
Donnette Sellers
Janet Shaffer
Robert Shulz
T. Simeons

Debbie Simpkins
Dave Sing
Steve Sjogren
Jack Skalicky
Sheila Sleggs
Chris Skoen
Venett Shari Smith
Carl Smith
Jessica Smith
Marty Smith
Michael Smith
Tom Smythe
Peary Stafford
P. Stanko
Barbara Stedman
Rich Stevens
Dollie Stover
Vori & Joe Strasser
Steve Stracker
Patricia Sulouff
Scott Sutcliffe
Paul Sutera
Rob Tallman
Andrew Taylor
Maeve Taylor
Roger Tess
Chris Tassaglia-Hymes
Steve Thomas
William Tolin
David Trently
Glendy Vanderah
Katrina Van Tassel
Bob Van Wagner
Shawchi Vorisek
Ronald Wagner
Allen Waldron
Mindy Walker
Joe Walko
Ron Weeks
Carol Weiss
Alan Wells
Jeffrey Wells
LaRue Wells
Melinda Welton
Richard Whiteford
Whitmore
Martin Wilcox
Gene Wilhelm
Ron Wolf
Joan Wolfe
Doug Wood
Pei-Hsing Wu
Helen Wuestenfeld
Peter Wulfhorst
Alice Yeaman
Matt Young
Yovanovich
G. Ziarno

Subject: Re: Recent TN permits

On 11/4/03 4:56 PM, "Doug Siddell" <DSIDDELL@OSMRE.GOV> wrote:

Here is the requested information. I apologize for the delay in getting this to you.

Company	Permit No.	Permitted Acres	Estimated Disturbed Acres
Appolo Fuels, Inc.	3012	24	24
Appolo Fuels, Inc.	3112	2298	660
Bell County Coal Corp.	3106	15	15
Mountainside Coal Company	3114	277	216
Mountainside Coal Company	3127	351	229
Robert Clear Coal Company	3116	2102	1149
Tennessee Mining, Inc.	3066	62	62

>
> From: Melinda Welton <weltonmj@earthlink.net>
> Date: Mon, 03 Nov 2003 09:38:41 -0600
> To: Doug Siddell <dsiddell@osmre.gov>
> Subject: Recent TN permits
>
> Doug
> Just a reminder. When we talked a couple of weeks ago you indicated that you
> would be able to send me a list of the surface mining permits in the
> Cumberland Mountains issued since
> December 2002 with the permitted acreages and the estimated actual surface
> disturbances.
>
> Thank you in advance for your time to do this.
>
> Cheers
> Melinda

SETTING NUMERICAL POPULATION OBJECTIVES FOR PRIORITY LANDBIRD SPECIES

Kenneth V. Rosenberg,

Cornell Lab of Ornithology, Ithaca, NY

and

Peter J. Blancher

Bird Studies Canada, Ottawa, ON

Corresponding Author: Ken Rosenberg

Cornell Lab of Ornithology

159 Sapsucker Woods Rd, Ithaca, NY 14850

Tel: (607) 254-2412

Fax: (607)

E-mail: kvr2@cornell.edu

22 pages, 4 tables, 4 figures

Abstract. -- Following the example of the North American Waterfowl Management Plan, deriving numerical population estimates and conservation targets for priority landbird species is considered a desirable, if not necessary, element of the Partners in Flight planning process. Methodology for deriving such estimates remains in its infancy, however, and the use of numerical population targets remains controversial within the conservation and academic communities. By allowing a set of simple assumptions regarding species' detectability, relative abundance data from Breeding Bird Survey (BBS) routes may be extrapolated to derive first approximations of current, total species populations, both rangewide and within Bird Conservation Regions. Preliminary comparisons with independently derived abundance estimates (e.g., Breeding Bird Atlas) suggest that these population estimates are within acceptable limits of accuracy for many species. If restoring populations to early BBS levels (late 1960s) is desirable, trend data may be used to calculate the proportion of a species' population lost during this 35-year period, and an appropriate population target may be set. For example, in the Lower Great lakes/St. Lawrence Plain, BBS data indicate a current (1990-1999) population of about 14,000 Red-headed Woodpeckers (*Melanerpes erythrocephalus*) and a loss of >50 percent since 1966. A reasonable conservation objective, therefore, may be to double the Red-headed Woodpecker population in this region over some future time period. We encourage the use of numerical population estimates and conservation targets in implementing conservation objectives for priority landbird species, and we encourage further research that leads to refinement of our methodology and our estimates.

Key Words: Breeding Bird Survey, landbirds, population estimates, population objectives.

INTRODUCTION

Conservation actions are most effective and efficient when they are directed towards meeting explicit objectives or targets. In North America, conservation of birds and their habitats has benefited from numerical population targets developed by regional or species experts. For waterfowl and wetland habitats in particular, species-specific population targets were developed and published as part of the North American Waterfowl Management Plan (NAWMP 1986 & Updates). Population targets were based on estimates from survey data from the 1970s, and these served as a baseline for restoring populations of declining species. These numerical targets, when scaled to waterfowl flyways and expressed in terms of habitat-acres or other limiting factors, have proven to be a very compelling tool for generating billions of dollars for wetland protection and restoration (2003 NAWMP Update, 1st draft). More recently, the U.S. Shorebird Conservation Plan has set numerical population targets for priority shorebird species, based on current survey data and also using early 1970s as a baseline (Brown and others 2001). Other examples of numerical population targets exist in the numerous recovery plans for endangered species in the United States and Canada.

Conservation planning for the roughly 500 species of non-endangered landbirds in North America has been proceeding at the regional and national levels through the international initiative, Partners in Flight (Pashley and others 2000). Although much discussion has taken place regarding the desirability and possible nature of population objectives for landbird species, we are just beginning to develop methods for deriving quantitative population targets for widespread and still-numerous species. Such numerical targets require the estimation of species'

population size at several geographic scales, knowledge of recent historic population trends, and agreement on timeframes and baselines for setting desirable targets. In this paper we outline a pragmatic and repeatable approach to estimating landbird population sizes using indices from the North American Breeding Bird Survey (BBS, Robbins and others 1989), the most comprehensive and continuous survey of landbird populations in most of the United States and southern Canada. We also discuss the many assumptions and issues that bear on the use of this approach. In addition, we propose a simple protocol for assigning numerical conservation targets for specific regions, based on current population estimates for high-priority species and knowledge of recent population trends. We present preliminary results of population estimation and objective setting for two Bird Conservation Regions (BCRs) in which active bird-conservation initiatives are underway, the Atlantic Northern Forest (BCR 14) and Lower Great Lakes-St. Lawrence Plain (BCR 13). Finally, within these two regions, we compare our BBS-derived population estimates with independent estimates derived from alternative datasets. Additional details and results of our population estimation methods will be published elsewhere (Rich and others in prep., Blancher and Rosenberg in prep.). Our goal here is to introduce a standardized methodology for incorporating numerical population objectives into landbird conservation plans and to stimulate further refinements of the population estimation approach.

METHODS AND ASSUMPTIONS

Our primary method for estimating population size of widespread landbird species involves extrapolation, using indices from the North American Breeding Bird Survey. Specifically, indices of relative abundance (birds per BBS route) were derived from every route surveyed

during the 1990s. Relative abundance indices for each bird species were then averaged across all routes within each Bird Conservation Region. By making a series of assumptions regarding area sampled, habitats sampled, and detectability of individual bird species, we can extrapolate BBS relative abundance to estimate total population size within geographic areas or for the entire continent.

Estimating Population Size From BBS Relative Abundance

A BBS route consists of as a series of 50 point counts, distributed along a 39.4 km (24.5 mile) roadside transect. The starting point and direction of each route are assigned randomly within 1-degree blocks of latitude and longitude in the United States and Canada (Robbins and others 1989). Each route traverses a variety of habitat types; taken together, the routes in a region potentially provide a random sample of the broad landscape within that region as a whole. At each of the 50 BBS stops on a route, observers are instructed to count all birds seen or heard within a 3-minute period, out to a radial distance of 400 m (1/4 mile). The maximum area sampled by each route, without making any corrections for species' detectability (see below), is roughly 25.1 km^2 (Fig. 1).

A formula for estimating regional population density from BBS counts has been presented by Bart (in press). This formula explicitly takes into account the proportion of individual birds that sing (or otherwise are detectable) during the 3-minute BBS stop, the probability that a singing bird will be detected by an observer, and the potential bias due to differences in roadside and region-wide distribution of habitats. An advantage of this formal approach is the ability to

calculate error associated with population estimates, and values of 1.0 can be used for probability terms that cannot yet be estimated with empirical data. Bart (in press) provides examples of this approach for a suite of species in shrub-steppe habitats in western United States.

Assumptions: Habitats

For the purpose of our initial analyses, we assume that (1) BBS routes are randomly distributed across larger landscapes (e.g., BCRs), and (2) BBS routes sample habitats in proportion to their occurrence within the larger landscapes. Because BBS routes are assigned at randomly located starting points, and because BBS coverage is widespread across most of the United States and southern Canada, our first assumption is probably reasonable for most of the BBS coverage area. An exception occurs in boreal and arctic BCRs at the northern limit of BBS coverage, where roadless areas predominate and roads typically sample a geographically-biased portion of the landscape.

The second assumption, namely that habitats along roadsides are an adequate sample of habitats throughout the region, is frequently discussed, and is considered by some to be a serious flaw of the BBS. Although the capability now exists to test this assumption using GIS, this analysis has not yet been carried out for the entire survey area, or for many local regions. Those few studies that have examined potential roadside bias have presented mixed results. For example, Bart and others (1995) found that the proportion of forest along BBS routes in Ohio (in a strip out to 280 m from roads) was not significantly different from the proportion in the overall landscape. In an inner strip within 140 m, however, the proportion of forest was significantly less (35 percent)

than in the overall landscape, suggesting that for forest-breeding species detected primarily close to roads (see below), BBS would underestimate abundance. Keller and Scallan (1999) found similar results in Ohio and Maryland, with forest habitats under-sampled by 21-48 percent and agricultural and urban habitats over-represented along roads. Interestingly, forest-field edge habitats also were under-sampled along BBS routes, whereas early successional and wetland habitats did not differ between on-road and off-road landscapes. Most recently, Bart (in press) found that proportions of major forest, shrub-steppe, and grassland habitats along BBS routes did not differ from the surrounding landscape within U.S. Forest Service Region-4, a large area of the western United States. While we urge a continent-wide GIS analysis of roadside bias in the BBS, which could yield BCR-specific correction factors to plug into Bart's equation, for now we assume no roadside bias in our calculations. Further ramifications of this assumption will be discussed below.

Assumptions: Species Detectability

Our initial approach assumes that all breeding pairs of birds very close to an observer at BBS stops are detected, and that detectability is otherwise a function of distance from the observer. We assume that all species have a fixed, average maximum detection distance on BBS routes across their range, and that these distances can be translated into effective sample areas for each species. Because few published data exist on exact detection distances for a wide range of species, we chose to assign species to one of four detection classes as follows (Table 1). A majority of birds on BBS routes in many regions are detected by songs or calls in forested or other densely vegetated habitats. A simple method of extrapolating avian density from counts of

singing males using detection threshold distances was proposed by Emlen and DeJong (1981), who also provided average maximum detection distances for 11 species of common forest birds. These distances ranged from 72 m (Blue-gray Gnatcatcher *Polioptila caerulea*) to 186 m (Wood Thrush *Hylocichla mustelina*) and averaged 128 m for the 11 species. Emlen and DeJong (1981) further proposed that numbers of singing males be doubled to obtain a total population. Wolf and others (1995) also found that most forest birds in northern Wisconsin could be heard to maximum distances of between 125 and 250 m. There was much individual variation, however, and some individuals could be heard at much greater distances. Wolf and others (1995) also recorded the minimum distance at which individuals of a species could no longer be heard; this distance also averaged 128 m for the 12 species presented. Based on these empirical data, we chose to initially assign most forest birds and other weakly vocalizing species a detectability threshold of 125 m (close to the average in Emlen and DeJong's study). For these species, we assume that all breeding pairs are detected out to that distance, and the effective area sampled on a complete BBS route is therefore 2.5 km^2.

A second group of species is detected visually or by loud calls over long distances; these include soaring raptors, crows and ravens, Upland Sandpipers (*Bartramia longicauda*), and a few other species with very loud vocalizations (e.g., Northern Bobwhite *Colinus virginianus*, Pileated Woodpecker *Dryocopus pileatus*). For these species, we assume that all breeding pairs are detectable out to the full range of sampling at each BBS stop (i.e., 400 m). The effective sampling area is therefore the same as for the total BBS route, i.e., 25.1 km^2. A third group of species is considered to be intermediate and was assigned a detection distance of 200 m (effective sampling area = 6.3 km^2). These include species such as Bobolink (*Dolichonyx oryzivorus*) and kingbirds that are detected by a combination of song and visual observations in open habitats.

After initially assigning most forest birds to the 125-m detection threshold category, we made two additional adjustments. First, for species with especially weak vocalizations, such as those with the closest detection thresholds in the above studies (e.g., Blue-gray Gnatcatcher), we created a fourth category with a detection distance of 80 m and an effective sample area for a BBS route of 1.0 km^2. We assigned a few other species that are particularly difficult to detect, such as grouse, into this category as well. Our second adjustment was to move several groups of forest birds with loud or far-carrying vocalizations into the 200-m threshold category. These included Ovenbird (*Seiurus aurocapillus*), most thrushes, pewees, tanagers, and some vireos. Our final estimate of detection-threshold categories was based on a combination of published data, our own personal experience on BBS routes, and consultation with other experienced observers. In future it should be possible to use species-specific detection distances for a majority of species, rather than the categories used here.

In addition to correcting for detectability due to distance from the observer, we know that detectability also varies with time of day throughout a typical BBS route. Although surveys begin before sunrise, during the peak of vocal activity for many species, a full route takes several hours to complete and numbers of birds detected on later stops may be a small fraction of those detected on early stops. To correct for this variation, we examined the distribution of detections among the 50 BBS stops, for 369 species with at least 10 routes of stop by stop data across the entire continental BBS survey. Based on these distribution curves (Fig. 2), we determined the

peak detection probability for each species and then the ratio of peak detections to average detections across the 50 stops. This ratio was used to adjust average numbers of birds per route to peak numbers, as if peak detection lasted throughout the morning. Species-specific correction factors ranged from 1.04 (House Finch *Carpodacus mexicanus*) to 22.3 (Whip-poor will *Caprimulgus vociferus*) with a median of 1.34 across all landbird species examined (median of 1.32 for diurnal landbirds). Four different types of time-of-day distributions are illustrated in Figure 2. Using these corrections, we can estimate populations even for crepuscular or primarily nocturnal species (e.g., Great Horned Owl *Bubo virginianus*, Common Nighthawk *Chordeiles minor*), as long as they are detected on several BBS routes on at least the first BBS stop. For the few species without adequate BBS data to calculate a time-of-day correction, we assigned a value based on another similar species with adequate data, or used the median value. Our time-of-day corrections will tend to be conservative for any species whose peak detection is outside of the BBS sample period, diurnally or seasonally.

Finally, we assume that individuals detected represent one member of a pair, and we therefore double all estimates to derive total number of breeding individuals. This "pair correction" is most obvious for the many species that are primarily detected as territorial singing males. Even for species in which males and females may be equally detectable, however, our experience on BBS routes suggests that only one member of a presumed pair is usually detected at any given time. Possible exceptions include some corvids, in which both members of a pair are highly vocal, and swifts and swallows, in which both males and females typically forage together over open habitats. A pair correction of 2 (double) may also be high for species with a high proportion of

singing but unpaired males. The "correct" pair correction for all species lies somewhere between 1 and 2 and may be determined empirically with further study.

Comparisons With Breeding Bird Atlas Estimates.

Few independent population estimates exist with which to make even crude comparisons with our BBS-derived estimates for common landbirds. One source of such data is the simple order-of-magnitude estimates of breeding populations gathered during Breeding Bird Atlas work in Ontario (Cadman and others 1987) and in the Maritime Provinces (Erskine 1992). During the course of atlassing in these areas, observers were asked to estimate the total breeding population of each species within 100-km^2 squares. Although these estimates are very crude (e.g., 1, 2-10, 11-100, 101-1,000, 1,001-10,000 or 10,001-100,000 pairs in a square), precision is gained from the very large number of squares sampled. Because atlassers are not restricted to roads, to early mornings, nor to a single peak of the breeding season, atlas data differ from BBS in having a reduced bias against off-road habitats, seasonal changes in breeding activity, and nocturnal species rarely detected on diurnal routes. Atlases also differ by covering larger proportions of the landscape, providing a larger sample size of population estimates, coverage for rarer species, and allowing extrapolation based on knowledge of the habitat by the observer.

To estimate a population in an area covered by breeding bird atlas, we follow Erskine (1992) in taking the midpoint of each categorical range (assuming a poisson distribution of abundances within each category) as the estimate for the atlas square. These estimates are totaled for each species across all squares in which estimates were made, then extrapolated to account for

unsampled squares. This method is illustrated using data for the Brown Thrasher (*Toxostoma rufum*) in the Ontario portion of Lower Great Lakes-St. Lawrence Bird Conservation Region (BCR 13). Brown Thrashers were found in 549 out of 744 censused atlas squares within this region, and estimates within squares ranged across several abundance categories (Fig. 3). Extrapolating abundance from poisson midpoints of these categories, and extrapolating to the full 840 squares in the region, we derive a population estimate for the region of 42,369 pairs. We compared atlas-derived population estimates for landbirds present in 25 or more atlas squares with population estimates based on the 28 BBS routes run from 1981-1985 within the same region. We then replicated this comparison using BBS and atlas data from the Maritime Provinces (part of BCR 14), which involved 1682 atlas squares and 39 BBS routes conducted from 1986-1990. In the Maritime comparison, we used estimates from Erskine (1992) only for species where they were based on data from atlassers, disregarding estimates from other sources.

Comparisons With Breeding Bird Census

Another source of density estimates for landbirds is the Breeding Bird Census (BBC), in which observers estimate breeding populations in small plots of fixed area and uniform habitat. We used the Canadian Breeding Bird (Mapping) Census Database (Kennedy and others 1999) to obtain landbird densities in BCRs 13 and 14 for comparison with our BBS estimates. Because BBC plots are not randomly distributed across the landscape, we use total landbird density as our basis of comparison, rather than density of individual species. We also calculated BBC landbird density within each broad habitat type, and adjusted regional BBC averages according to the proportion of the regional landscape in each habitat type, based on satellite land cover data.

RESULTS

Population Estimates

First approximations of breeding populations were derived for 167 species that were sampled by the BBS in the Lower Great Lakes-St. Lawrence Plain (BCR 13) and for 154 species in the Atlantic Northern Forest (BCR 14). These estimates ranged from roughly 100 breeding individuals for rare breeders such as Dickcissel (*Spiza americana*) and Le Conte's Sparrow (*Ammodramus leconteii*) in BCR 13, and for Peregrine Falcon (*Falco peregrinus*) in both regions, to 10 million American Robins (*Turdus migratorius*) in BCR 13 and 11 million Red-eyed Vireos (*Vireo olivaceus*) and 13 million robins in BCR 14. Breeding population size averaged 488,000 individuals across all landbird species in BCR 13 (398 birds per km^2), whereas populations averaged 792,000 individuals in BCR 14 (340 birds per km^2).

Of particular interest are population estimates for species considered of high conservation concern in these two regions. For BCR 13, we calculated populations for 20 species identified as high priorities by the landbird breakout group of the ongoing BCR 13 bird conservation initiative (see Hayes and others this volume). Our estimates of regional populations for these species ranged from roughly 400 Short-eared Owls (*Asio flammeus*) to 1.9 million Bobolinks (Table 2). We also present average relative abundances on BBS routes in the region, as well as detection distance, effective sampling area, and time-of-day adjustment factors for each of these species. In BCR 14, our population estimates for 20 species with high PIF assessment scores (Panjabi and

others 2001) ranged from roughly 10,200 Whip-poor-wills to 2.1 million Veerys (*Catharus fuscescens*; Table 3).

Comparison With Breeding Bird Atlas

We obtained independent estimates of breeding populations for 120 landbird species that had abundance data in at least 25 atlas squares and on at least 1 of 28 BBS routes in the Ontario portion of BCR 13. Correlation between these two sets of estimates was remarkably high (r = 0.95; Fig. 4a). Two-thirds (66 percent) of species had estimates that differed by less than a factor of 2, and 99 percent were within an order of magnitude of each other. For example, in the Ontario/BCR 13 comparison, the atlas method estimated roughly 1.3 million pairs of American Robin versus 1.8 million pairs for the BBS method. Other close comparisons, representing a wide range of common and rare species, included European Starling (*Sturnus vulgaris*; 1.9 million vs. 2.2 million pairs), American Goldfinch (*Carduelis tristis*; 381,000 vs. 363,000), Hairy Woodpecker (*Picoides villosus*; 24,000 vs. 23,000), Great Horned Owl (5,700 vs. 6,300), and Henslow's Sparrow (*Ammodramus henslowii*; 147 vs. 160 pairs). Other individual comparisons that were not as close may suggest incorrect detectability thresholds, differences in habitat coverage between the two survey methods, or lack of precision for rare species.

A similar comparison in the Maritime Provinces portion of BCR 14 also resulted in a high correlation (r = 0.91) between atlas- and BBS-derived estimates for 99 species (Fig. 4b). For this comparison, we relied on Erskine's (1992) calculated estimates, which involved removing the highest 3 percent of abundance estimates for each species, and reducing the midpoint of the top

abundance category. We estimate that this trimming procedure reduced atlas population estimates by more than 50 percent, on average, and resulted in conservative (lower) populations relative to our BBS-derived estimates. Still, atlas and BBS estimates were within a factor of 2 for 64 percent of species, and were within an order of magnitude for all species.

Comparison With Breeding Bird Census

Total population density for all landbird species was approximately three times higher when based on Breeding Bird Censuses, compared with BBS-derived density estimates, in both BCRs (Table 4). Even when BBC densities were corrected for habitat availability in each BCR, BBC densities remained high relative to BBS-derived densities.

Deriving Numerical Population Objectives

To derive numerical population objectives, we start with the premise that a reasonable conservation target is to reverse population declines observed over the past 30-40 years, as measured by BBS or equivalent survey. Rather than extrapolate annual rates of decline over 30-40 years, we chose to use broad classes of population decline as the basis for objectives, as in Rich and others (in prep.). For this purpose we used population trend scores (PT) assigned to species in the PIF species assessment process (Carter and others 2000, Panjabi and others 2001). These scores of 1-5 are based on BBS population trends (or equivalent) over the entire timeframe of the survey, usually since 1966. A PT of "5" is assigned to species that have declined significantly by at least 50 percent over a 30-year period. For these species, our conservation

objective is to double current populations over some future time period, and the numerical target is calculated as roughly twice the current population estimate. A PT score of "4" is assigned to species with less certain declines or significant declines of between 15 and 50 percent over 30 years. For these species we propose an objective of restoring populations based on a 30 percent decline (approximately the midpoint of the 15-50 percent range), which translates to a numerical target of about 1.4 times current population. PT scores of "3" are assigned to species with highly variable, uncertain, or unknown population trends. For these, we suggest a conservative objective of maintaining slightly higher populations in the future until we can acquire sufficient trend data to measure trend; i.e., 1.1 times current population estimates. Finally, for species with stable (PT = 2) or increasing (PT = 1) populations, our conservation objective is to maintain future populations at or above current levels.

Note that this categorical assignment of numerical objectives reduces the reliance on specific BBS trend estimates, which often have wide 95 percent confidence limits, especially in regions with small samples of BBS routes. Using this approach, we present conservation objectives and numerical population targets for several species identified as priorities in BCR 13 (Table 2) and BCR 14 (Table 3).

DISCUSSION

We believe that our pragmatic approach, with clearly stated assumptions, can produce useful first approximations of total population size for North American landbirds. Our comparisons with independently derived population estimates suggest that extrapolations from BBS abundance

data typically yield estimates well within the correct order of magnitude. It is likely that our population estimates are conservative for most species, because we did not include any correction for birds that are within detection distance but still not detected during a 3-minute BBS count even at peak detection time of day, i.e. because they didn't vocalize, or because observers missed them. Bart (in press) estimated that 30-70 percent of shrub steppe birds do not call during a 3-minute counts, and a further 20-30 percent of birds singing within detection distance are missed by BBS observers. Our comparisons to BBC landbird densities also suggest our BBS-derived estimates are conservative, perhaps by a factor of 3, though it is possible that BBC densities are high if plots were biased to sites with more birds or if densities were overestimated in small BBC plots.

A habitat bias on BBS routes, if present in the region under consideration, would result in under- or over-estimated populations, so is best measured and incoporated into the estimate (Bart, in press). However, even where habitat bias has not been measured, this does not rule out use of BBS-derived estimates to set and track conservation targets, as long as progress towards objectives is measured using the same method. The same studies that documented a bias against forest sampling on roadside routes (Bart and others 1995, Keller and Scallan 1999) did not find an equivalent bias in terms of the change in land cover over time.

While we are encouraged by the comparisons with other measures of population size, we acknowledge that our estimates are only crude first approximations that might be poor for some groups of birds, or in regions where BBS routes are sparse or strongly habitat-biased. We therefore encourage further research to refine the corrections we have applied so far and to test

for and correct any habitat bias in BBS surveys in specific regions. Studies of species-specific detection distances, vocalization frequency, detection probabilities of males and females, and proportion of unpaired birds detected would all be extremely useful for refining population estimates. Our efforts thus far have focused on landbird species, which as a group are reasonably well sampled by BBS. These methods may also be appropriate for some species of waterfowl, shorebirds and waterbirds that are typical of landscapes sampled by BBS; testing is needed to confirm this. Finally, our method does not address vast boreal/taiga and arctic regions of North America that are not sampled by BBS. Other methods will be needed to estimate populations of these far-northern breeding species (Rich and others in prep.). We invite additional comparisons and discussion, and we encourage the testing of these methods on other species and in other regions.

Even if we accept the first approximation of landbird population estimates as reasonable, using these to set numerical conservation targets remains controversial. Fear exists among academic ornithologists and conservation practitioners that using inaccurate population estimates to set conservation targets may lead to misdirected conservation actions and loss of scientific credibility. Alternative forms of population objectives have been proposed and discussed, including using minimum block sizes of habitats for maintaining "source" or "viable" populations, using BBS relative abundance as a surrogate for population size (e.g., achieve a regional density of *x* birds per BBS route), and using raw trend estimates as objectives (e.g., stabilizing a 2 percent per year BBS decline). Our assumption in using explicit population estimates is that there is compelling value in knowing the magnitude of population change desired, and having easily understood objectives. Population estimates also allow comparisons to

independently-estimated sources of mortality and a grasp of the magnitude of habitat required to sustain bird populations across the landscape.

Other considerations in setting conservation targets relate to timeframes, historic baselines, and political and social acceptability of objectives. We selected "early BBS" as a reasonable historic reference because it represents the extent of our knowledge of population trends for most species, and because it is a similar timeframe to that proposed for the restoration of waterfowl and shorebird populations. Just as important, it also allows a comparable measurement of success into the future, using the same BBS methodology. Numerous factors could make it desirable to alter this timeframe, however. For example, some populations and habitats were severely altered long before the beginning of the BBS, and it may be desirable to attempt restoration of these to some earlier baseline. Alternatively, some populations or habitats may have been artificially abundant in the 1960s (relative to pre-settlement conditions), such as some early successional habitats in eastern regions, or populations responding to spruce-budworm outbreaks, and proposing the return to these levels may be inappropriate. Full discussion of these and other factors is critical for setting effective and achievable conservation targets, but such a discussion is beyond the scope of our paper. Our proposed method for setting numerical targets can be adapted to a variety of baselines or timeframes.

In conclusion, we believe that numerical population estimates and conservation targets for landbird species are useful and achievable. We propose a simple methodology for extrapolating from widely available BBS abundance data, while stating a series of assumptions and acknowledging the limitations of this approach. We encourage further research that aims to

refine population estimates and better enables us to understand and use data from the BBS. We further encourage the use of additional survey data, point counts, checklist counts, and other measures of abundance to fill in gaps for species and regions poorly covered by BBS. Finally we encourage the use of population-based conservation targets in continental and regional plans as a compelling means of justifying and communicating levels of desired population and habitat change in specific regions.

ACKNOWLEDGEMENTS

We thank many individuals throughout the Partners in Flight network for inspiring discussions, both formal and informal, on the topics of population estimation and objective setting. In particular, members of the PIF Species Assessment Technical Committee (Carol Beardmore, Greg Butcher, Dean Demarest, Erica Dunn, Chuck Hunter, Arvind Panjabi, David Pashley and Terry Rich) were instrumental in helping us develop the methods and arguments presented in this paper. Jon Bart contributed to early discussions and provided a draft of his methods for extrapolating BBS counts to population size. John Sauer contributed insights into use of BBS data. In addition we thank the many participants of meetings and workshops who encouraged us to continue our efforts. Our analyses and approach rely on data collected by many others; we thank all of the volunteers who participated in breeding bird surveys and atlases, and the organizations that made those data available. This paper is a contribution of the Cornell Laboratory of Ornithology and Bird Studies Canada.

LITERATURE CITED

Bart, J. [in press]. **Estimating total population size for songbirds.** Bird Populations.

Bart, J., M. Hofschen, and B. G. Peterjohn. 1995. **Reliability of the Breeding Bird Survey: Effects of restricting surveys to roads.** Auk 112: 758-761.

Brown, S., C. Hickey, B. Harrington, and R. Gill (eds.) 2001. **The U.S. Shorebird Conservation Plan, 2nd ed.** Manomet Center for Conservation Sciences, Manomet, MA.

Cadman, M. D., P. F. J. Eagles, and F. M. Helleiner. 1987. **Atlas of the Breeding Birds of Ontario.** Federation of Ontario Naturalists and the Long Point Bird Observatory, University of Waterloo Press; 617 p.

Carter, M. F., W. C. Hunter, D. N. Pashley, and K. V. Rosenberg. 2000. **Setting conservation priorities for landbirds in the United States: the Partners in Flight approach.** Auk 117: 541-548.

Emlen, J. T. and M. J. DeJong. 1981. **The application of song detection threshold distance to census operations. In. C. J. Ralph and J. M. Scott eds. Estimating numbers of terrestrial birds.** Studies in Avian Biology 6:346-352.

Erskine, A. J. 1992. **Atlas of Breeding Birds of the Maritime Provinces.** Nova Scotia Museum and Nimbus Publishing Ltd.; 270 p.

Hayes, C., A. Millikin, R. Dettmers, K. Loftus, B. Collins, and I. Ringuet. (this volume). **Integrated migratory bird planning in the Lower Great Lakes/St. Lawrence Plain Bird Conservation Region.**

Keller, C. M. E. and J. T. Scallan. 1999. **Potential roadside biases due to habitat changes along breeding bird survey routes.** Condor 101:50-57.

Kennedy, J. A., P. Dilworth-Christie, and A. J. Erskine. 1999. **The Canadian Breeding Bird (Mapping) Census Database.** Technical Report Series No. 342, Canadian Wildlife Service, Ottawa, Ontario

NAWMP. 1986. **North American Waterfowl Management Plan. A strategy for cooperation.** U.S. Dept. of the Interior & Environment Canada.

NAWMP. 2003. **North American Waterfowl Management Plan 2003 Update. Strengthening the biological foundations.** 1st draft for review by stakeholders, 8 August 2002.

Panjabi, A. and C. Beardmore, P. Blancher, G. Butcher, M. Carter, D. Demarest, E. Dunn, C. Hunter, D. Pashley, K. Rosenberg, T. Rich, and T. Will. 2001. **The Partners in Flight Handbook on Species Assessment & Prioritization. Version 1.1.** Rocky Mountain Bird Observatory, Brighton, CO.

Pashley, D. N., C. J. Beardmore, J. A. Fitzgerald, R. P. Ford, W. C. Hunter, M. S. Morrison, and K. V. Rosenberg. 2000. **Partners in Flight. Conservation of the Land Birds of the United States.** American Bird Conservancy, The Plains, VA.

Robbins, C. S., D. Bystrak, and G. H. Geissler. 1986. **The breeding bird survey: its first fifteen years, 1965-1979.** USDI Fish and Wildlife Service Resource Publ. 157, Washington, D.C.

Wolf, A. T., R. W. Howe, and G. J. Davis. 1995. **Detectability of forest birds from stationary points in northern Wisconsin.** In: Ralph, C. J., J. R. Sauer, and S. Droege, eds. Monitoring bird populations by point counts. Gen. Tech. Rep. PSW-GTR-149, Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 19-23.

Table 1. CATEGORIES OF DETECTION DISTANCES AND EQUIVALENT BBS SAMPLING AREA FOR LANDBIRDS.

Maximum detection distance	Effective BBS sample area / route	Example species
80 m	1 km^2	Brown Creeper, Blue-gray Gnatcatcher, Golden-crowned Kinglet, Ruffed Grouse
125 m	2.5 km^2	Most forest-breeding warblers, Red-eyed Vireo, Downy Woodpecker, accipiters
200 m	6.3 km^2	Thrushes, waterthrushes, wood-pewees, meadowlarks, Bobolink, Song Sparrow
400 m	25.1 km^2	Whip-poor-will, Pileated Woopecker, Red-tailed Hawk, crows, vultures

Table 2. POPULATION ESTIMATES AND NUMERICAL OBJECTIVES FOR LANDBIRD SPECIES IDENTIFIED AS PRIORITY BY HAYES AND OTHERS (THIS VOLUME) IN LOWER GREAT LAKES-ST. LAWRENCE PLAIN, BCR 13

Species	BBS avg / rte	Maximum detection distance	BBS sample area (km^2)	Time of day adjust	BCR population (individuals)	PT	BCR population objective	Numerical target (rounded)
Northern Harrier	0.302	400m	25.1	1.29	6,200	3	1.1 X pop	6,900
Black-billed Cuckoo	0.746	200m	6.3	1.39	66,100	4	1.4 X pop	93,000
Short-eared Owl	0.004	200m	6.3	1.60	400	5	2 X pop	800
Whip-poor-will	0.017	400m	25.1	22.3	6,100	5	2 X pop	8,500
Red-headed Woodpecker	0.178	200m	6.3	1.25	14,200	5	2 X pop	28,000
Eastern Wood-Pewee	3.477	200m	6.3	1.12	249,200	4	1.4 X pop	350,000
Acadian Flycatcher	0.271	125m	2.5	1.17	51,100	2	Current pop	51,000
Loggerhead Shrike	0.007	200m	6.3	1.19	500	5	2 X pop	1,000
Sedge Wren	0.025	125m	6.3	1.62	2,600	3	1.1 X pop	2,900
Wood Thrush	6.081	200m	6.3	2.30	892,200	4	1.4 X pop	1,200,000
Brown Thrasher	1.499	200m	6.3	1.12	107,800	5	2 X pop	215,000
Blue-winged Warbler	0.565	200m	6.3	1.21	43,700	2	Current pop	44,000
Golden-winged Warbler	0.123	200m	6.3	1.32	10,300	2	Current pop	10,000
Cerulean Warbler	0.100	125m	2.5	1.35	21,800	2	Current pop	22,000
Hooded Warbler	0.357	200m	2.5	1.20	68,800	2	Current pop	69,000
Field Sparrow	3.572	200m	6.3	1.07	243,800	5	2 X pop	490,000
Henslow's Sparrow	0.025	200m	6.3	1.66	2,700	5	2 X pop	5,600
Grasshopper Sparrow	0.476	200m	6.3	1.47	44,700	5	2 X pop	89,000
Bobolink	24.863	200m	6.3	1.21	1,927,000	4	1.4 X pop	2,700,000

Notes: Area of BCR13 is 201,292 km^2. Pair adjust = 2 for all species. For descriptions of detection distance categories, BBS effective sample areas for each species, pair adjustment, time-of-day adjustments and population trend (PT) scores, see Methods.

Table 3. POPULATION ESTIMATES AND NUMERICAL OBJECTIVES FOR LANDBIRD SPECIES WITH HIGH PIF ASSESSMENT SCORES IN ATLANTIC NORTHERN FOREST, BCR 14

Species	BBS avg / rte	Maximum detection distance	BBS sample area (km^2)	Time of day adjust	BCR population (individuals)	PT	BCR population objective	Numerical target (rounded)
Broad-winged Hawk	0.190	125m	2.5	2.63	143,100	2	Current pop	140,000
Ruffed Grouse	0.218	80m	1	1.37	214,700	5	2 X pop	430,000
Whip-poor-will	0.016	400m	25.1	22.3	10,200	4	1.4 X pop	14,000
Yellow-bellied Sapsucker	3.351	125m	2.5	1.40	1,342,700	4	1.4 X pop	1,880,000
Black-backed Woodpecker	0.043	125m	2.5	1.81	22,300	3	1.1 pop	25,000
Olive-sided Flycatcher	0.551	200m	6.3	1.25	78,700	5	2 X pop	160,000
Veery	10.889	200m	6.3	1.67	2,071,600	4	1.4 X pop	2,900,000
Wood Thrush	4.983	200m	6.3	2.30	1,302,900	5	2 X pop	2,600,000
Chestnut-sided Warbler	7.622	200m	6.3	1.23	1,070,000	4	1.4 X pop	1,500,000
Cape May Warbler	0.371	125m	2.5	1.31	139,900	4	1.4 X pop	196,000
Black-throated Blue Warbler	1.988	125m	2.5	1.12	639,400	2	Current pop	640,000
Blackburnian Warbler	2.324	125m	2.5	1.28	852,700	1	Current pop	850,000
Bay-breasted Warbler	0.727	125m	2.5	1.28	267,100	4	1.4 X pop	370,000
Canada Warbler	1.216	125m	2.5	1.25	436,500	5	2 X pop	870,000
Scarlet Tanager	1.496	200m	6.3	1.14	193,500	2	Current pop	190,000
Nelson's Sharp-tailed Sparrow	0.077	125m	2.5	1.92	42,400	3	1.1 X pop	47,000
Rose-breasted Grosbeak	2.731	200m	6.3	1.09	340,400	4	1.4 X pop	480,000
Bobolink	7.271	200m	6.3	1.21	1,004,100	4	1.4 X pop	1,400,000
Rusty Blackbird	0.179	200m	6.3	1.44	29,300	5	2 X pop	59,000

Notes: Area of BCR14 is 358,697 km^2. Pair adjust = 2 for all species. For descriptions of detection distance categories, BBS effective sample areas for each species, pair adjustment, time-of-day adjustments and population trend (PT) scores, see Methods.

Table 4. Comparison Of Total Landbird Density From Breeding Bird Census (BBC) Plots Vs Estimates Based On Breeding Bird Survey (BBS), for BCRs 13 and 14

BCR	BBC plots (N)	BBC landbird density (prs/km2)	BBC density weighted by habitat in BCR (prs/km2)	BBS landbird density (prs/km2)	Ratio BBC / BBS
BCR 13	204	592	506	198	2.6
BCR 14	93	632	621	210	3.0

Note: Estimates are for Canadian portions of the BCRs.

Figure Legends:

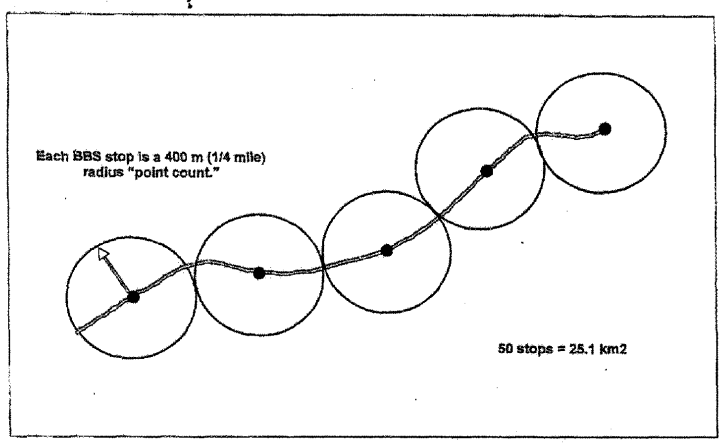
Figure 1. Schematic of a BBS route, illustrating how the 50 roadside points, each sampling out to a distance of 400m, can sample a maximum of 25.1 km^2.

Figure 2. Distribution of detections across 50 BBS stops for four species with contrasting temporal patterns. Lines are 6th order polynomial regressions fit to the data. Numbers are time of day adjustments (max detection / avg detection) used in population estimates.

Figure 3. Brown Thrasher pair estimates in 10 x 10 km squares in the Ontario portion of BCR 13, from the Ontario Breeding Bird Atlas, 1981-1985.

Figure 4. Comparison of BBS- and Atlas-derived population estimates: A. Ontario portion of BCR 13, 1981-1985; B. Maritime provinces (BCR 14), 1986-1990. Line shows equal BBS and Atlas values. Landbirds with atlas estimates from 25+ atlas squares and found on 1 or more BBS route are included.

Figure 1


Each BBS stop is a 400 m (1/4 mile) radius "point count."
50 stops = 25.1 km2

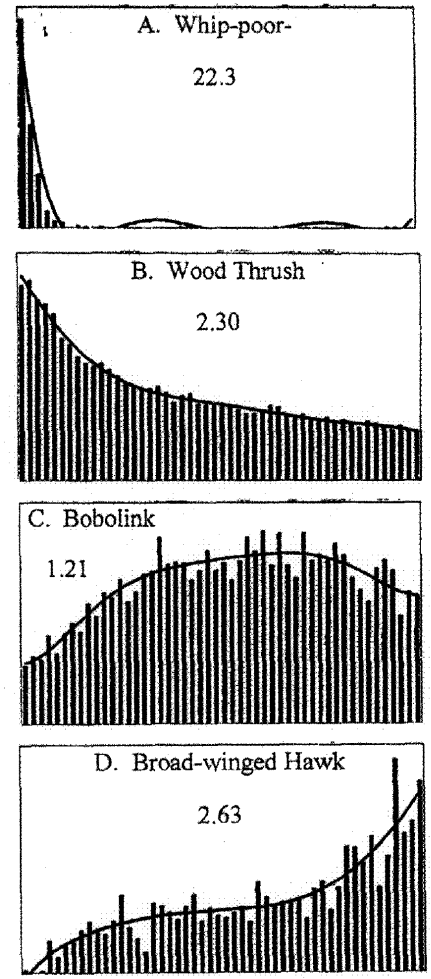

A. Whip-poor-
22.3
B. Wood Thrush
2.30
C. Bobolink
1.21
D. Broad-winged Hawk
2.63

Figure 3

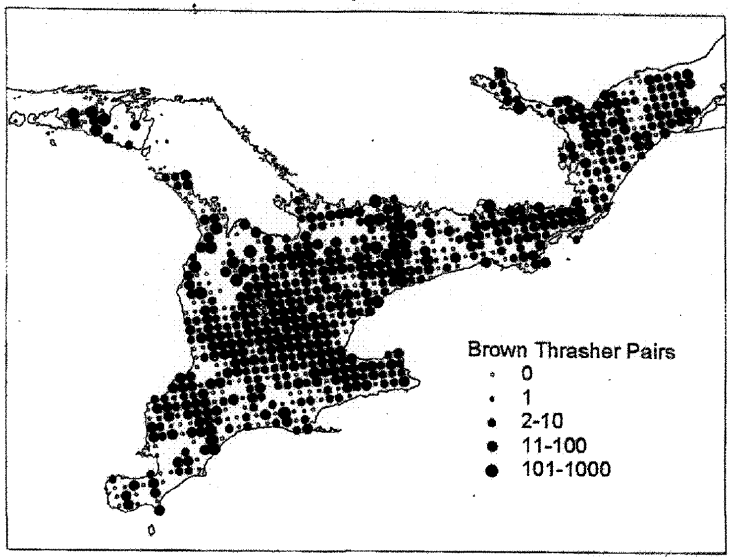
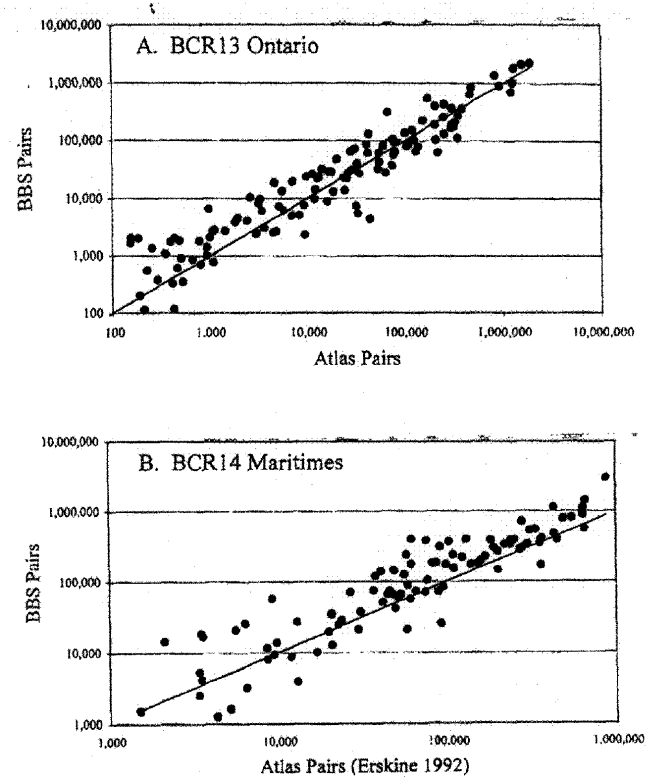


Figure 4



Subject: Re: Recent TN permits

On 11/4/03 4:56 PM, "Doug Siddell" <DSIDDELL@OSMRE.GOV> wrote:

Here is the requested information. I apologize for the delay in getting this to you.

Company	Permit No.	Permitted Acres	Estimated Disturbed Acres
Appolo Fuels, Inc.	3012	24	24
Appolo Fuels, Inc.	3112	2298	660
Bell County Coal Corp.	3106	15	15
Mountainside Coal Company	3114	277	216
Mountainside Coal Company	3127	351	229
Robert Clear Coal Company	3116	2102	1149
Tennessee Mining, Inc.	3066	62	62

>
> From: Melinda Welton <weltonmj@earthlink.net>
> Date: Mon, 03 Nov 2003 09:38:41 -0600
> To: Doug Siddell <dsiddell@osmre.gov>
> Subject: Recent TN permits
>
> Doug
> Just a reminder. When we talked a couple of weeks ago you indicated that you
> would be able to send me a list of the surface mining permits in the
> Cumberland Mountains issued since
> December 2002 with the permitted acreages and the estimated actual surface
> disturbances.
>
> Thank you in advance for your time to do this.
>
> Cheers
> Melinda

BRADEN MOUNTAIN SURFACE MINE

CAMPBELL AND SCOTT COUNTIES, TENNESSEE

1 PURPOSE AND NEED FOR ACTION

In November 1999, TVA approved a mining plan submitted by Gatliff Coal Company for mining TVA-owned coal in the Koppers Coal Reserve in Campbell and Scott Counties, Tennessee. Most of the land surface over the Koppers Coal Reserve, including the area of the approved mine, is within the Royal Blue Wildlife Management Area and owned by Tennessee Wildlife Resources Agency (TWRA). The mine, known as Braden Mountain Area No. 16, had a permitted area of 664.5 acres and would have used a variety of surface mining techniques. Gatliff had previously been issued the necessary approvals for the mining plan by the Office of Surface Mining Reclamation and Enforcement (OSM) and the Tennessee Department of Environment and Conservation. As part of its approval process, OSM completed an Environmental Assessment and Finding of No Significant Impact (OSM 1999). TVA cooperated with OSM in the preparation of this EA, conducted its own independent review of this EA, and adopted this EA and issued its own FONSI as part of its November 1999 approval (TVA 1999).

Shortly after the November 1999 approval and before the initiation of mining activities, Gatliff terminated its lease agreement with TVA because changed coal market conditions had made the proposed mining operation uneconomical. OSM placed Gatliff's mining permit in inactive status.

Recent changes in coal market conditions have made the formerly proposed mining operation more economically attractive. TVA therefore proposes to enter into a new lease agreement that would result in mining coal in the Braden Mountain area. This EA evaluates the environmental impacts of the lease agreement and resulting coal mining operation, and supplements the EA prepared by OSM and adopted by TVA in 1999. It also addresses issues that have arisen since 1999.

2 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 The Proposed Action

TVA proposes to enter into a lease agreement with a coal mining company that would result in the mining of TVA-owned coal in the Braden Mountain area. The mining operations would be carried out as described in the mine plan previously submitted by Gatliff Coal Company (Gatliff Coal Company 1999). The mine would produce about 300,000 tons of coal per year over a 7.4 year period, for a total production of 2,232,817 tons. Major features of the mine are illustrated in Figure 1.

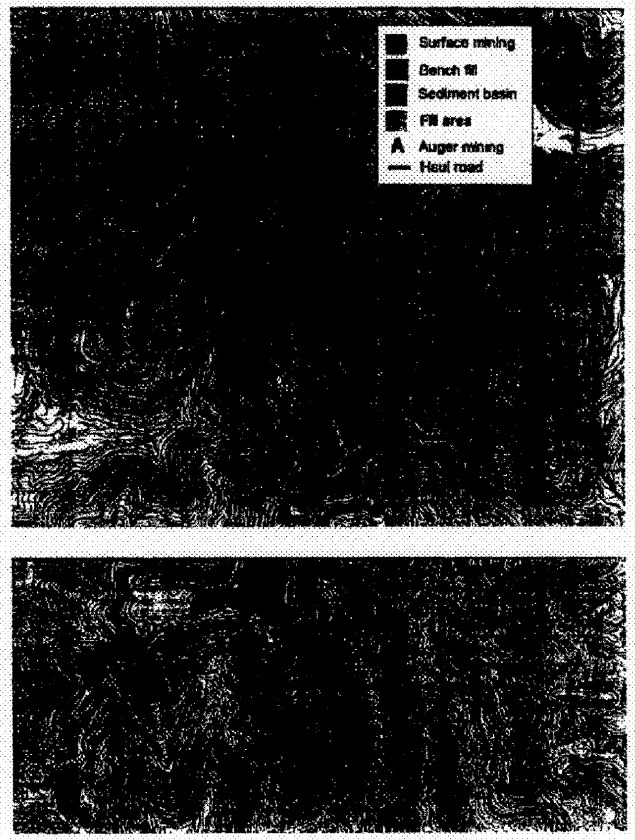


Figure 1. Major features of the proposed Braden Mountain surface mine

As decribed in the Gatliff Coal Company mining plan, coal would be mined from five seams – Upper Pine Bald, Lower Pine Bald, Pewee, Walnut Mountain, and Red Ash. Mining techniques would include contour mining, cross ridge mining, second cut mining, and auger mining. The mine permit area, as defined by OSM regulations, is 664.5 acres. The area of surface disturbance, including roads, settling ponds, and fills, totals 526.5 acres. Haul roads would occupy about 86 acres, and light duty access roads to sediment basins would occupy 9 acres. Contour, cross ridge, and second cut mining would disturb an area of 320.6 acres. Auger mining would occur on 138 acres, on which there would be little surface disturbance.

Fill areas for excess overburden would total 90 acres. Four fill areas totalling 22.1 acres would be on old orphan mine benches, mostly on the 2300-foot contour. Six fill areas totalling 33.2 acres would be valley fills. The largest valley fill would be 9.8 acres, and portions of two of the valley fills would be on abandoned mine benches. The remaining four fill areas, totalling 34.7 acres, would be located within newly mined areas. Twenty-five sediment basins, ranging from 0.4 to 1.8 acres in size, would be constructed. Seven of these sediment basins would be within newly mined areas. The 18 other sediment ponds would have a total area of 18 acres; 14 of these 18 ponds would be on abandoned mine benches.

Almost all of the proposed roads outside of the area to be mined follow existing roads. Most of these roads would be regraded and many segments would be widened. About 0.6 miles of new road would be constructed between Elk Gap on Highway 297 and Braden Gap.

Hydrologic impacts would be minimized by measures described in a Hydrologic Reclamation Plan submitted as part of the Gatliff mine permit application. Haulroads would be constructed with durable material and culverts would be installed. Disturbed areas along roads would be quickly revegetated. All runoff from the actual mine site would be diverted by berms, drainage ditches, and natural drainways to sediment basins. Sediment ponds would be designed for a 10 year/24 hour precipitation event and have discharge structures to maintain a steady flow after precipitation events. Alternative sediment control devices, such as hay bales and filter fabric fence, would be utilized during early construction activities before basins are completed. Drainage structures would be lined with grass or rock as necessary, and incorporate splash ponds to control erosion. Storage of coal on the mine site would be minimized, and runoff from temporary coal stockpiles would drain to sediment basins. Fill areas would be constructed with diversion channels around their perimeters and rock drains beneath the fills to route both surface runoff and groundwater flow to sediment basins. Sediment basin discharges would be monitored and treated as necessary to meet effluent limitations.

Mine reclamation would be contemporaneous with mining. Backfilling of spoil would be used to eliminate highwalls and return the area to approximate original contour. Topsoil would be segregated during mining and redistributed over the area during reclamation. The postmining land use would be wildlife habitat. Revegetation measures to be implemented at the request of the TWRA and the U.S. Fish and Wildlife Service include planting warm season grasses on 20 acres of flat areas on top of the valley fills and planting 12.5 acres in hardwood species that would mature to provide potential bat roosting trees. Acceptable species include post oak, chestnut oak, persimmon, northern red oak, white oak and sawtooth oak; sawtooth oak would not compose more than 25 percent of the plantings. An additional 14 acres would be planted in a mix of trees and shrubs. Both the hardwood

plantings and the tree/shrub plantings would be in discrete blocks distributed across the mine area. The remainder of the area would be planted with a mixture of grasses and legumes. Sediment basins would be retained by TWRA for wildlife habitat enhancement; some basins may be modified to enhance their wetland characteristics.

2.2 Alternatives to the Proposed Action

Under the No Action alternative, TVA would not enter into a lease agreement for the mining of TVA-owned coal in the Braden Mountain area. The coal would not be mined as described above and TVA would not receive royalty payments.

3 AFFECTED ENVIRONMENT

3.1 Vegetation

The project area lies within the Cumberland Mountain subprovince of the Cumberland Plateau Physiographic Province as described by Fenneman (1938). It is also within the Mixed Mesophytic Forest Region as defined by Braun (1950). Historically, forests of this region were dominated by a mixture of deciduous trees including several oaks (northern red, white, black, scarlet, and chestnut oaks), red maple, sugar maple, yellow-poplar, basswood, cucumbertree, black cherry, yellow buckeye, sweet birch, blackgum, white ash, and, formerly, American chestnut. Pines occur on some south- and west-facing ridges and hemlock often occurs in stream bottoms.

The project area includes two peaks on Braden Mountain, with elevations of about 2640 and 2700 feet. The surrounding topography is steep and rugged. Most of the area has been previously disturbed by logging and/or coal mining. Deep mining has occurred in the area, although relatively little evidence of this disturbance remains. Abandoned contour surface mines surround much of Braden Mountain at about 2300 feet elevation. These mines are generally less than 100 yards wide and mostly reforested. Larger abandoned surface mines are present between about 1900 and 2150 feet elevation on the south side of Braden Mountain and between Braden Mountain and Highway 63. These mines are partially revegetated.

The dominant vegetation type is upland hardwood forest. Forests on Braden Mountain range from sapling to sawtimber-size. A large portion of the southern Braden Mountain site was logged in about 1999 to prepare for mining by Gatliff Coal Company. This area is vegetated by a mixture of hardwood saplings, pole-sized trees and scattered snags, and has a dense shrub layer dominated by blackberry and pokeweed. Forests on the ridgetops and south and west slopes are dominated by scarlet and chestnut oaks, mockernut hickory, red maple, and sourwood. Common understory species found in these forests include mountain laurel, flame azalea, pinxter flower, greenbriar, and Christmas fern. Forests on north and east slopes support more mesic species including yellow-poplar, yellow buckeye, white oak, northern red oak, sweet birch, cucumbertree, and basswood. These forests have a rich herbaceous understory; common species include black cohosh, wild ginger, and painted trillium. Dominant trees on the abandoned mines are black locust, yellow-poplar, and red maple; Virginia pine, shortleaf pine, and white pine are also present. Many of the pines have recently died from southern pine beetle infestation.

The distribution, estimated age class, and composition of the forest communities in the project area are representative of the greater Cumberland Mountain region (Smalley 1984; Hinkle et al. 1993). Review of all natural communities thus far defined in the International Classification of Ecological Communities indicates that none of the plant communities are currently considered to be imperiled (have been assigned a global conservation rank of G1 or G2; NatureServe 2002). In summary, no plant communities of state, regional, or global significance occur within the project area.

3.2 Wildlife

The primary wildlife habitat in the Braden Mountain area consists of upland hardwood forest. Previous mining and timber harvesting activities have resulted in an overall mixture of age classes of trees in most forested portions of the study area. Age classes range in age from mixed sapling and pole-sized stands to mature sawtimber-sized, second-growth forest. Mast producing trees such as hickories and a variety of oaks are common in the project area. Other prominent tree species in the area include yellow-poplar and red maple.

A portion of the area (described in Section 3.1) was logged in about 1999 in preparation for the mining proposed by Gatliff Coal Company. Roads, partially vegetated abandoned surface mines, and exposed rock highwalls provide additional early successional habitats. Prominent species of plants in these early successional habitats include princess tree, redbud, black locust, elderberry, and blackberry.

As part of the Royal Blue Wildlife Management Area (RBWMA), the study area is managed for wildlife such as white-tailed deer, wild turkey, gray squirrel, raccoon, quail and ruffed grouse. The Tennessee Wildlife Resources Agency (TWRA) has recently reintroduced elk and bear into RBWMA. Elk sign was observed in the Braden Mountain area during field investigations. Black bear are occasionally sighted in the lower elevations of RBWMA.

In addition to the game species listed above, other common mammals in the project area include gray fox, eastern chipmunk, woodland vole, white-footed mouse, house mouse, big brown bat, red bat, and short-tailed shrew. Reptiles and amphibians observed within the area include eastern box turtle, green frog, leopard frog, gray tree frog, five-lined skink, fence lizard, red-spotted newt, American toad, garter snake, and black rat snake. A few small ponds on abandoned mine benches provide habitat for several species of amphibians. Northern copperhead and timber rattlesnake were also observed during field visits.

A few abandoned mine portals occur within the Braden Mountain permit area. These cave-like environments can provide habitat for numerous species of small mammals, such as white-footed mice, and several species of bats. Birds such as eastern phoebe and Carolina wrens also frequently build nests in mine openings.

The permit area supports a diverse bird population, comprised mostly of forest-dwelling species. About half of the approximately 55 species of birds breeding in the mine permit area are neotropical migrants which winter in the Caribbean and Latin America. The most abundant species present in pole- to sawtimber-sized forest are, in descending order of abundance, the red-eyed vireo, ovenbird, cerulean warbler, scarlet tanager, American redstart, black-and-white warbler, and hooded warbler. Indigo buntings, eastern towhees, and northern cardinals are common in forest edges and in the portion of Braden Mountain

cutover 3 to 4 years ago. Other birds typical of early successional habitats occurring in the cutover area are the chestnut-sided warbler, yellow-breasted chat, American goldfinch, and field sparrow. Several birds more typical of later successional forest including the red-eyed vireo, black-and-white warbler, hooded warbler and Kentucky warbler also occur in the cutover area, especially around its perimeter.

3.3 Endangered and Threatened Species

3.3.1 Plants

Review of the TVA Natural Heritage and the Tennessee Division of Natural Heritage Program databases revealed that three federally listed and 37 additional state-listed plant species are known from Campbell and Scott Counties, Tennessee (Appendix 1). These species lists formed the basis of field surveys for rare plant species, which were conducted in June and August 2002.

No federal-listed plant species, or suitable habitats for such species, were observed during field surveys of the project area. However, a single individual of goldenseal (*Hydrastis canadensis*), state-listed as of special concern because of commercial exploitation, was found on the northern Braden Mountain area.

During the surveys conducted in June 2002, several areas of potentially suitable habitat for several state-listed species were observed. These areas were re-evaluated during follow-up surveys conducted in August 2002. The majority of available habitat is less than optimal for the rare plant species potentially occurring in the project area. No additional occurrences of rare plant species were observed during these follow-up surveys conducted in August 2002.

3.3.2 Terrestrial Animals

A review of the TVA Regional Natural Heritage Program database indicates that several species of amphibians, reptiles, birds, and mammals that potentially occur in the project area are protected under state and/or federal law. Table 1 lists these species and their individual legal status.

Four protected species of salamanders are reported from the vicinity of RBWMA. Eastern hellbenders are large aquatic salamanders that live in cool, well-oxygenated streams. The species has been reported from nearby Cove Lake and portions of Cove Creek. However, hellbenders are not expected in the project area due to heavy silt loads in associated streams. Black Mountain dusky salamanders are associated with permanent streams. Due to the semi-permanent nature of the small streams on the Braden Mountain area, suitable habitat for this species is limited in the project area.

The two remaining species of salamanders, four-toed, and Wehrle's, potentially exist in the project area. These salamanders are associated with the margins of small vernal ponds or moist bluff faces. Records of both species are reported from nearby areas. Former strip mining operations in the study area created several small depressions that temporarily collect water. Many of these depressions are suitable habitat for four-toed salamanders. The Wehrle's salamander has only been found in one locality in Tennessee; researchers are currently searching for the species in the RBWMA. Highwalls created during former mining activities and sandstone outcrops in the project site represent suitable habitat for this species.

Table 1. Endangered, threatened, or otherwise listed terrestrial animals known from Campbell and Scott Counties, Tennessee.

Common Name	Scientific Name	State Status	Federal Status
	Amphibians		
Eastern Hellbender	*Cryptobranchus a. alleghaniensis*	In Need of Management	—
Black Mountain Dusky Salamander	*Desmognathus welteri*	In Need of Management	—
Four-toed Salamander	*Hemidactylium scutatum*	In Need of Management	—
Wehrle's Salamander	*Plethodon wehrlei*	In Need of Management	—
	Birds		
Sharp-shinned Hawk	*Accipiter striatus*	In Need of Management	—
Cerulean Warbler	*Dendroica cerulea*	In Need of Management	—
Peregrine Falcon	*Falco peregrinus*	Endangered	—
Swainson's Warbler	*Limnothlypis swainsonii*	In Need of Management	Management Concern*
Red-cockaded Woodpecker	*Picoides borealis*	Endangered	Endangered
Bewick's Wren	*Thryomanes bewickii*	Endangered	—
Barn Owl	*Tyto alba*	In Need of Management	—
Golden-winged Warbler	*Vermivora chrysoptera*	In Need of Management	Management Concern
	Mammals		
Eastern Big-eared Bat	*Corynorhinus rafinesquii*	In Need of Management	—
Gray Bat	*Myotis grisescens*	Endangered	Endangered
Eastern Small-footed Bat	*Myotis leibii*	In Need of Management	—
Indiana Bat	*Myotis sodalis*	Endangered	Endangered
Woodland Jumping Mouse	*Napaeozapus insignis*	In Need of Management	—
Allegheny Woodrat	*Neotoma magister*	In Need of Management	—
Hairy-tailed Mole	*Parascalops breweri*	In Need of Management	—
Common Shrew	*Sorex cinereus*	In Need of Management	—
Smoky Shrew	*Sorex fumeus*	In Need of Management	—
Southeastern Shrew	*Sorex longirostris*	In Need of Management	—
Southern Bog Lemming	*Synaptomys cooperi*	In Need of Management	—

*Management Concern is a non-regulatory status indicating concern for the species.

Eight protected species of birds are reported from Campbell and Scott counties. Two, the red-cockaded woodpecker and the Bewick's wren, are considered extirpated from the area.

A colony of red-cockaded woodpeckers occurred in the eastern portion of RBWMA from at least the 1970s into the early 1980s. This species requires large areas of mature to old growth pines. No suitable habitat exists in the vicinity of Braden Mountain, and the woodpecker is now considered by TWRA to be extirpated from the State. There are two races of Bewick's wren in Tennessee. The Appalachian race formerly nested in Campbell County, however its numbers have dropped drastically. The Appalachian Bewick's wren no longer exists in much of east Tennessee. The Bewick's wren is reported from middle and west Tennessee, where it occurs in open woodlands, upland thickets and fencerows in agricultural areas (Nicholson 1997). This species has also recently declined in numbers. Neither subspecies of Bewick's wren is expected to occur in the project area.

Four state-listed species of birds potentially occur in the vicinity of the project area. Swainson's warblers are rare summer residents of RBWMA. The species is occasionally observed along Cove Creek. The Swainson's warbler is associated with extensive thickets of rhododendron or in thick vegetation along waterways. Limited suitable habitat exists in the project area. Peregrine falcons likely migrate through the project area. The species historically nested on cliffs in eastern Tennessee. The species likely nested within 18 miles of Braden Mountain in 1950s (Nicholson 1997). Exposed highwalls at Poteet Gap would provide marginal habitat for this species. Sharp-shinned hawks are uncommon in the area, but could be found in the project area year round. It is most numerous during the fall and spring, when the species migrates through the area. It typically nests in pines within mixed pine-hardwood forests, and forages in open forests and forest edges. Barn owls prefer to nest in semi-forested bluffs, hollow trees, and old buildings. Highwalls in the Poteet Gap area represent suitable nesting habitat for this species.

Two state-listed species of warblers, the golden-winged and the cerulean, nest in the project area. The golden-winged warbler is fairly common in the Royal Blue area and occupies old fields and revegetated surface mines with a ground cover of grasses and forbs, clumps of shrubs, and scattered trees. Potentially suitable habitat for this bird occurs on a reclaimed surface mine a short distance NNW of Poteet Gap; no golden-wings were observed in this area or elsewhere within the Braden Mountain mine permit area. The grass/forb ground cover on the recently logged southern portion of the Braden Mountain site is not extensive enough to provide habitat for the golden-winged warbler.

The cerulean warbler is a common summer resident of mesic hardwood forests in the Cumberland Mountains. It occupies mixed age to mature stands, usually with an open understory and scattered canopy gaps. It reaches some of its highest rangewide densities in the Cumberland Mountains (Nicholson 1997) and is one of the most numerous songbirds on RBWMA (Nicholson unpubl. data). Cerulean warblers have been reported on 8 bird census plots containing suitable forest habitat on or adjacent to RBWMA. Their density on these plots ranged from 5 to 51 pairs/100 acres (12 to 125 pairs/100 ha) and averaged 25.8 pairs/100 acres (64 pairs/100 ha) (censuses published in *Audubon Field Notes* and *American Birds*; Nicholson unpubl. data).

During May and June 2002, cerulean warblers were recorded at 26 of 43 point counts conducted in the Braden Mountain mine permit area. The proportion of counts recording cerulean warblers, 60%, is very similar to the proportion of a larger sample of point counts (220 of 357, 62%) censused in the portion of RBWMA west of I-75 in 1995-1997. Assuming that the proportion of point counts recording cerulean warblers is indicative of the proportion of the area occupied by cerulean warblers and the average density within occupied areas is

25.8 pairs/100 acres, about 104 pairs of cerulean warblers likely occur within the 665 acre Braden Mountain mine permit area.

Several protected species of bats are known from Campbell and Scott Counties. Eastern big-eared bats form colonies in hollow trees, crevices in sandstone bluffs, cisterns, and abandoned buildings. Eastern small-footed bats roost in abandoned mines, under rocks in talus slopes, in crevices in bluffs and expansion joints in bridges. Both species forage in forested habitats and usually hibernate in caves. Suitable roosting and foraging habitats for big-eared and small-footed bats are present in the Braden Mountain area.

The endangered gray bat is known from Campbell and Scott Counties. Gray bats occupy caves throughout the year. Summer roosts are usually formed in caves near water. Gray bats typically forage over larger streams, rivers, and reservoirs. During winter months, they migrate from their summer colonies to hibernate in cooler caves. Gray bats have been found hibernating in New Mammoth Cave, approximately 7 miles from Braden Mountain.

The endangered Indiana bat forms small roosts under the exfoliating bark of dead trees during summer months. Several species of trees that have flaky bark, such as white oak and shagbark hickory, are also used as roost sites. Roosts trees may be found in riparian or upland forests near streams. There are only a few small maternity colonies known from Tennessee. No colonies are known from the RBWMA, but forested areas in the project area are suitable for Indiana bats. Indiana bats hibernate in caves during winter months. Approximately 85% of the total Indiana bat population roosts in 7 caves north of Tennessee. The remainder of the population forms small colonies in caves throughout the species range, including several sites in Tennessee. A small colony hibernates in New Mammoth Cave.

Abandoned coal mine portals can provide potential hibernating sites for both the gray bat and the Indiana bat. One such site, on a northeast slope of the southern portion of the Braden Mountain site, was surveyed in January, 1999. The site was found to be too warm to be used as a gray bat or Indiana bat hibernaculum. Two other portals occur on abandoned mine benches at about 2300 foot elevation; one of these is on the northwest slope of the southern portion of the Braden Mountain site and the other is on the east slope of the northern portion of the Braden Mountain site. Due to the lack of open water resources and the lack of roosting caves, gray bats are not likely to roost or forage on the Braden Mountain site.

Several species of state-listed small mammals are reported from Campbell and Scott Counties. Smoky, common, and southeastern shrews have are typically found in cooler, moist forests with a thick-leaf litter layer and moss-covered rocks, fallen logs, and other woody debris. These small mammals are usually found in association with creeks, streams, or moist areas. Southeastern shrews are less constrained by habitat requirements than other shrews and can be found in a variety of habitats. Most habitats in the RBWMA are suitable for these species, especially smoky and southeastern shrews.

Allegheny woodrats are typically found along rock outcrops, in caves or mines, usually in forested areas having a high degree of woody debris and leaf litter. There are no records of woodrats from the project site, however, suitable habitat for this species exists along the many forested highwalls and rock outcrops on the Braden Mountain site.

Woodland jumping mice, hairy-tailed mole, and bog lemming exist in suitable habitats on the RBWMA. The species are usually associated with moist habitats. Jumping mice are found in forested or brushy areas along streams or the margins of wetland habitats. Hairy-tailed moles in the vicinity have been collected under decomposing logs in loose, moist soil (Allsbrooks et al. 1983). Bog lemmings have also been collected in similar habitats. These species are expected to exist in suitable habitats in the project area.

3.3.3 Aquatic Animals

Activities in the proposed mine permit area could affect several named perennial and intermittent streams that support aquatic life. A search of the TVA Regional Natural Heritage Project database indicates that several federally or state-listed species have been reported from Campbell and Scott Counties (Table 2). This section provides brief descriptions of the status of these species in the project area.

Table 2. Endangered, threatened, or otherwise listed aquatic animals reported from Campbell and Scott Counties, Tennessee.

Common Name	Scientific Name	State Status	Federal Status
Molluscs			
Cumberland elktoe	*Alasmidonta atropurpurea*	Endangered	Endangered
Cumberlandian combshell	*Epioblasma brevidens*	Endangered	Endangered
Tan riffleshell	*Epioblasma florentina walkeri*	Endangered	Endangered
Green blossom pearlymussel	*Epioblasma torulosa gubernaculum*	Endangered	Endangered
Littlewing pearlymussel	*Pegias fabula*	Endangered	Endangered
Cumberland bean	*Villosa trabalis*	Endangered	Endangered
Fish			
Emerald darter	*Etheostoma belleyi*	In Need of Management	-
Ashy darter	*Etheostoma cinereum*	Threatened	-
Arrow darter	*Etheostoma sagitta*	In Need of Management	-
Duskytail darter	*Etheostoma percnurum*	Endangered	Endangered
Cumberland johnny darter	*Etheostoma susanae*	Endangered	Candidate
Palezone shiner	*Notropis albizonatus*	Endangered	Endangered
Tippecanoe darter	*Etheostoma tippecanoe*	In Need of Management	-
Silverjaw Minnow	*Notropis buccatus*	Threatened	-
Rosyface Shiner	*Notropis rubellus rubellus*	In Need of Management	-
Blackside dace	*Phoxinus cumberlandensis*	Threatened	Threatened

The emerald darter, arrow darter, and blackside dace have all been recently reported in Terry Creek, a tributary to Elk Fork Creek, and in Straight Fork Creek and its Jake Branch tributary. The headwater portions of these streams drain portions of the proposed mine permit area. None of these species, or other listed aquatic species, have been reported

from streams within the proposed mine permit area, and none were found in field surveys of this area conducted during June 2002.

The emerald darter inhabits rocky pools and runs of the creeks and small rivers that make up the watersheds of the Big South Fork and Upper Cumberland Rivers (Etnier and Starnes 1993). On the Cumberland Plateau, this species is particularly susceptible to degradation of water quality resulting from siltation, toxic runoff, and acid mine drainage from coal mines and poor land use practices.

The arrow darter inhabits pools and runs in streams of slow-to-moderate current. High quality habitat includes have bedrock and rock rubble bottoms interspersed with areas of clean sand; such streams are usually cool and densely shaded by hemlock, rhododendron, or mountain laurel. The arrow darter is adapted to tolerate moderate levels of siltation; however, its range has probably been adversely impacted by heavy siltation following logging and surface mining and acid mine drainage from surface mines. The arrow darter's range in Tennessee is confined to the upper Cumberland River and some of the eastern tributaries to the Big South Fork on the Cumberland Plateau.

The blackside dace is found in about 30 separate streams in the upper Cumberland River system (primarily above Cumberland Falls) in Kentucky and Tennessee, including parts of Scott and Campbell Counties. It inhabits small upland streams with moderate flows and is generally associated with undercut banks and large rocks in relatively stable, well-vegetated watersheds with good riparian vegetation. The fish is not found in low-gradient silty streams or in high-gradient mountain tributaries. Habitat degradation from coal mining (acid mine drainage), natural low flows, and siltation from logging, road construction, agriculture, and human development are the primary threats to this species.

None of the remaining species listed in Table 2 have been recently reported in stream segments draining the proposed mine permit area. The only known locations in Scott or Campbell Counties for several of the species listed in Table 2 are within the main channel of the Big South Fork River. These species include the Cumberland elktoe, Cumberlandian combshell, tan riffleshell, littlewing pearlymussel, Cumberland bean, duskytail darter, and Tippecanoe darter. None of these species is likely to occur in streams potentially impacted by this action.

The green blossom pearlymussel formerly occurred in the Tennessee River system, including the Clinch River. It is considered likely to be extinct (NatureServe 2001). The palezone shiner formerly occurred in Cove Creek, but is now believed to be extirpated from Tennessee (Etnier and Starnes 1993). The only known extant populations of this species occur in the Little South Fork of the Cumberland River in southeast Kentucky and Paint Rock River in Alabama. Neither the green blossom pearlymussel nor the palezone shiner are likely to occur in streams within the project area.

The silverjaw minnow occurs in small creeks as well as large rivers with sand substrates. The last reported occurrence of this species in potentially affected streams was in Straight Creek in 1974. This species is considered on the verge of extirpation in the upper Cumberland drainage in Tennessee (Etnier and Starnes 1993).

The Cumberland johnny darter is known from short reaches of 16 small streams in the upper Cumberland system in Whitley and McCreary Counties in Kentucky, and two small streams in Tennessee: one in Scott County and one in Campbell County (O'Bara 1988,

Laudermilk and Cicerello 1998). It is not known from streams in the Straight Creek, Cove Creek, or Elk Fork drainages, and is not likely to occur in any streams potentially impacted by this project.

The ashy darter is known from several tributaries to the New River near the project area. It is typically found in small to medium upland rivers with bedrock or gravel substrate and sluggish currents (Etnier and Starnes 1993). It is also known from a few other tributaries to the Cumberland River as well as a few tributaries to the Tennessee River in Tennessee and Kentucky.

The rosyface shiner typically inhabits large creeks and small rivers with clean water and substrates consisting of rubble, boulder, or bedrock. Although this species is more tolerant of siltation than other related species, it is particularly susceptible to degradation of water quality resulting from siltation, toxic runoff, and acid mine drainage from coal mines and poor land use practices. The subspecies of rosyface shiner that occurs on the Cumberland Plateau (*Notropis rubellus rubellus*) is particularly threatened by habitat degradation.

3.4 Surface Water and Aquatic Ecology

The proposed mine area is located within the Cumberland Mountains subprovince of the Cumberland Plateau physiographic province. Larger streams in this subprovince tend to have moderate to low gradients and flow in well defined valleys. Examples include Elk Fork Creek, Buffalo Creek, and Cove Creek. Smaller streams drain mountain slopes and tend to have moderate to high gradients and a substrate of boulders, cobble, and gravel. Many streams in the Cumberland Mountains have been degraded by siltation and acid mine drainage from unreclaimed or poorly reclaimed coal mines. This situation has ameliorated somewhat in recent years. Otherwise, waters in the subprovince tend to be soft and low in dissolved nutrients.

The proposed mine site is located within the headwaters of three watersheds: Buffalo Creek, Elk Fork Creek, and Straight Fork. A portion of the haul roads within the proposed mine permit area are within the headwaters of a fourth watershed, Cove Creek. Buffalo Creek, through its Rockhouse Fork, Collins Branch, Lick Branch, and Crabtree Branch tributaries, drains the west side of the site. Buffalo Creek is a tributary to the New River. Elk Fork Creek, a tributary to Clear Fork Cumberland River, drains the northeast portion of the site via its Terry Creek, Stillhouse Branch, Frogpond Hollow, and Hudson Branch tributaries. Much of the southern portion of the site drains to Straight Fork as well as its Jake Branch and Cross Branch tributaries. Straight Fork is a tributary to Buffalo Creek.

Water use classifications of the streams draining the proposed mine permit area are fish and aquatic life, recreation, irrigation, and livestock watering and wildlife. Cove Creek has the additional use classification of industrial and domestic water supply. There are no surface water users within or adjacent to the proposed mine permit area. The closest domestic groundwater resource is about a mile from the proposed mine site and much lower than potentially affected coal seams.

A 3.9 mile stretch of Elk Fork Creek near Jellico is listed on the state of Tennessee's 2002 draft Clean Water Act 303(d) list as partially supporting use classifications (TDEC 2002). The causes of these exceedances of water quality standards are siltation and other habitat alterations resulting from abandoned mining. Straight Fork Creek and its tributaries are also listed on the 303(d) list as partially supporting use classifications. The causes of these

exceedances of water quality standards are pH and other habitat alterations, resulting from resource extraction and habitat modification.

The portions of these streams within the mine permit area are intermittent or wet weather conveyances which are dry most of the year. Five of the eight intermittent streams were flowing or wet during June 2002. Evidence of aquatic life (caddisflies, mayflies, chironomids was present during June 2002 in an intermittent tributary to Frogpond Hollow on the northeast slope of the northern portion of Braden Mountain, and in an intermittent tributary to Jake Branch on the east slope of the southern portion of Braden Mountain. The Frogpond Hollow tributary flows from several separate channels which converge on an orphan mine bench and the Jake Branch tributary flows from a pond on an orphan mine bench. A few ponds, some of which are ephemeral, occur on orphan (e.g., abandoned) mine benches within the mine permit area. These ponds are occupied by aquatic insects and several species of amphibians.

The aquatic community in Cove Creek at mile 18.2 (about one mile above Cove Lake) was sampled by TVA in May 2000. The fish assemblage, comprised of 15 species, was rated fair compared to what would be expected in such a stream under ideal conditions; the benthic assemblage (bottom-dwelling invertebrates) was rated good.

Results of surface water quality monitoring within potentially affected streams are presented in the 1999 mine permit application (Gatliff Coal Company 1999) and in Cumulative Hydrologic Impact Assessments prepared by OSM (OSM 1999). Water quality in these streams is described as reasonably good. Collins Branch, Rockhouse Fork, Cross Branch, and Jake Branch show impacts from past coal mining based on moderate to high concentrations of sulfate (up to 150 mg/l). pH levels in sampled streams are near-neutral (5.5 – 8.0). Total dissolved solids, dissolved iron, and dissolved manganese levels are below Environmental Protection Agency (EPA) standards except for the Straight Fork watershed, where both total dissolved solids and dissolved manganese standards are exceeded.

3.5 Managed Areas and Ecologically Significant Sites

The land surface of the Braden Mountain area is within the 43,620-acre Royal Blue Wildlife Management Area owned by the TWRA. TWRA purchased the area in 1991 after leasing it for many years from several previous owners. The WMA is managed for hunting and other forms of outdoor recreation including wildlife observation, off-road vehicle operation, hiking, and horse riding (TWRA 2001). Several habitat management projects have been undertaken in cooperation with organizations such as Quail Unlimited, the National Wild Turkey Federation and the State Division of Mine Reclamation.

Popular game species on RBWMA are white-tailed deer, wild turkey, ruffed grouse, raccoon, and squirrel. TWRA began releasing elk on RBWMA in 2000 as part of an elk restoration project centered on the Cumberland Mountains and adjacent parts of the Cumberland Plateau.

The Smoky Mountain segment of the Cumberland Trail, a linear state park, runs through RBWMA. At its closest point, the Cumberland Trail is about 7 miles from the proposed mine permit area.

RBWMA is also one of two publicly owned tracts within the Southern Cumberland Mountains Important Bird Area (IBA), which encompasses 141,000 acres in four counties (National Audubon Society 2002a). The Southern Cumberland Mountains IBA is notable for its high populations of the cerulean warbler and the golden-winged warbler, as well as the presence of many other species of migrant and resident birds. The IBA program is an international effort to identify the most important areas for maintaining bird populations and focus conservation efforts on those sites (National Audubon Society 2002b). It is administered in the U.S. by the National Audubon Society and in Tennessee is administered by TWRA in cooperation with the Tennessee Ornithological Society and two Audubon Chapters.

The Cumberland Forest Public Hunting Area (PHA), a mostly forested area of 75,000 acres owned by International Paper, adjoins much of the west side of RBWMA. PHAs are managed through a cooperative agreement between land holding companies and TWRA. Forest lands owned by International Paper are managed to provide lumber, paper, clean water, improve wildlife habitats and to create recreational opportunities for the public. In August 2002, TWRA announced its acquisition of this property through a joint effort with The Conservation Fund, Renewable resources Inc., and International Paper.

Stinking Creek, a tributary to the Clear Fork Cumberland River, is listed on the National Rivers Inventory maintained by the National Park Service. It is described in the Inventory as a rural, scenic stream flowing through the unique Cumberland Black geologic formation (NPS 2002). The headwaters of Stinking Creek are about 2 miles east of the project area. None of the proposed mine permit area drains to Stinking Creek.

3.6 Visual Resources

The physical, biological, and cultural features of an area combine to make the visual landscape character both identifiable and unique. Scenic integrity indicates the degree of unity or wholeness of the visual character. Scenic attractiveness is the evaluation of outstanding or unique natural features, scenic variety, seasonal change, and strategic location. Where and how the landscape is viewed will affect the more subjective perceptions of its aesthetic quality and sense of place. Views of a landscape are described in terms of what is seen in foreground, middleground, and background distances. In the foreground, an area within one half mile of the observer, details of objects are easily distinguished in the landscape. In the middleground, normally between a mile and four miles from the observer, objects may be distinguishable but their details are weak and they tend to merge into larger patterns. Details and colors of objects in the background, the distant part of the landscape, are not normally discernible unless they are especially large and standing alone. The impressions of an area's visual character can have a significant influence on how it is appreciated, protected, and used.

Landscape character gives a geographical area its visual and cultural image, and consists of the physical, biological, and cultural attributes that makes each landscape identifiable and unique. The general landscape character of the proposed mine permit area is described in the following paragraphs.

The northern portion of the Braden Mountain area is situated between Wesley Gap and Braden Gap. It is heavily wooded, limiting viewsheds to adjacent land areas. Elevations range from about 1950 to 2700 feet at the site of a former lookout tower along the highest ridge. Access to the site is from the south off of Highway 63 at Poteet Gap or from the east

off of Highway 297 at Elk Gap. Both access roads are unimproved; traffic along these roads is limited to seasonal hunters, off-road vehicles, and other recreation users. There are no residents in the immediate mine area; a few occupied houses occur along Highway 297 near Elk Gap.

Narrow abandoned surface mines surround much of the area at about the 2300 foot contour. These mines are mostly revegetated and the highwalls are generally less than 30 feet tall. The remainder of the area is hardwood forest with grass and shrub understory. The elevations along the ridge are comparable or greater in height than surrounding ridges within a four-mile radius. Scenic attractiveness is common. Scenic integrity is moderate.

The southern portion of Braden Mountain is situated between Limestone Ridge to the east and Gunsight Mountain to the west. Elevations range from approximately 2000 to 2650 feet at the highest point on Braden Mountain. Access to the site is via the same unimproved roads used for the northern portion of Braden Mountain.

Narrow, mostly revegetated, abandoned surface mines surround parts of the site at about the 2300 foot contour. Larger, partially revegetated abandoned surface mines occur at about the 2000 foot contour on the southern edge of the site. These larger mines have tall sheer rock highwalls that contrast with the surrounding steep slopes. Views from this area are minimal due to heavy deciduous vegetation. Scenic attractiveness is common. Scenic integrity is moderate.

3.7 Cultural Resources

East Tennessee has been an area of human occupation for the last 12,000 years. Human occupation of the area is generally described in five broad cultural periods: Paleo-Indian (11,000-8,000 BC), Archaic (8000-1600 BC), Woodland (1600 BC-AD 1000), Mississippian (AD 1000-1700), and Historic (AD 1700- to present). Prehistoric land use and settlement patterns vary during each period, but short- and long-term habitation sites are generally located on flood plains and alluvial terraces along rivers and tributaries. Specialized campsites tend to be located on older alluvial terraces and in the uplands. European interactions with Native Americans in this area began in the 17th and 18th centuries associated with the fur trading industry. Euro-American settlement increased in the early 19th century as the Cherokee were forced to give up their land. Campbell County was created by the Tennessee General Assembly in 1806 (Baird et al. 1998). Scott County was created in 1849 (Binnicker 1988).

TVA Cultural Resources Staff has defined the area of potential effect (APE) as the approximately 900 acres associated with the proposed coal mining activity. This APE includes the 664.5 acre proposed mine permit area, as well as areas not included in the mine permit area but bounded by proposed mine features such as sediment basins and access roads.

No archaeological surveys had been previously conducted in the project area. Given the high potential for archaeological resources associated with caves and rockshelters in the Cumberland Plateau area, an archaeological reconnaissance was conducted to determine if any areas within the APE had a potential for archaeological sites. Based on the reconnaissance survey, 400 acres of land were then subjected to Phase I Archaeological surveys to determine if any sites eligible for listing in the National Register of Historic Places (NRHP) were present within the APE. The Phase I Archaeological survey, which

included shovel testing, was conducted in June 2002 (Pietak and Holland 2002). Three isolated finds, none of which are considered potentially eligible for listing on the NRHP, were observed. The survey also identified two rockshelters with a potential for archaeological resources to be present. Phase II testing was conducted at these rockshelters in September of 2002. Archaeological material indicative of brief prehistoric occupation was collected at each of the rockshelters, which were designated as archaeological sites 40CP134 and 40CP135. The limited quantity of material yielded insufficient data to make either rock shelter eligible for listing in the NRHP.

There are 4 historic properties listed on the National Register of Historic Places in Campbell County and 5 in Scott County. None of these properties are located near the project area.

4 ENVIRONMENTAL CONSEQUENCES

The following sections describe the likely environmental consequences resulting from the proposed action. The potential cumulative impacts of the resulting coal mining are described in Final Environmental Impact Statement, Comprehensive Impacts of Permit Decisions Under the Tennessee Federal Program (OSM 1985). In its notice of adoption of this FEIS (55 Federal Register 23338, June 7, 1990), TVA determined that the potential cumulative environmental impacts of coal leasing were adequately assessed. Additional information on potential cumulative hydrologic impacts is presented in the Cumulative Hydrologic Impact Assessments prepared by OSM (OSM 1999) and described below.

Under the No Action Alternative, the leasing and surface mining of coal in the Braden Mountain area would not occur and royalties on the TVA coal would not be paid. The area would continue to be managed as part of Royal Blue Wildlife Management Area by TWRA.

4.1 Vegetation

The proposed action would result in the disturbance of vegetation on about 527 acres of the 664.5 acre mine permit area. The proposed mine permit area is a mixture of recently harvested forest, dominated by saplings and shrubs, abandoned mines in various stages of revegetation ranging from herbacious and shrub communities to pole-sized forest, and more mature forest dominated by oak-hickory and mixed mesophytic forest types.

Although no plant communities of state, regional, or global significance occur within the mine area, the proposed action would result in long term changes to site vegetation. Vegetation within areas to be mined, as well as fill areas and sediment ponds, would be removed. As the area is reclaimed, ground cover, shrubs, and trees will be replanted. Most of the area will be replanted with a mixture of grasses and legumes such as orchardgrass, annual rye, ladino clover, and red clover.. Portions of the area will be planted with native warm season grassess, in blocks of shrub/tree mixes, or in blocks of deciduous trees dominated by oaks. Following the completion of reclamation activities and bond release, the vegetation on the mine site would be managed by TWRA. In the absence of active management, areas of grass and herbaceous cover would eventually revert to forest.

Several invasive, non-native plant species are already established in RBWMA, partly as a result of previous surface mine reclamation activities. Such species considered to present a severe threat to native plant communities such as sericea lespedeza and autumn olive

would not be used in revegetating the proposed mine. The proposed action would not result in the introduction of any invasive species to RBWMA.

4.2 Wildlife

Under the proposed action, about 527 acres would be modified during construction and operation of the mine. Haul roads would occupy 86 acres; most of the haul roads are existing, and impacts of widening these roads would be minor. Of the remaining 441 acres, about 100 acres are early successional habitats, at least 60 acres are abandoned mine areas with early to mid-successional habitats, and the remainder more mature forest.

Clearing and mining activities would result in some direct mortality of slow-moving animals and the displacement of more mobile species into adjacent habitats as mining activities proceed through the mine area over the course of 7.4 years. This progressive movement of coal removal activities and the subsequent incremental reclamation of the disturbed areas would reduce impacts to local populations of wildlife.

Results of restoration studies performed on reclaimed mines at nearby Brushy and Walnut Mountains (TVA 1981), as well as other studies elsewhere, indicate that wildlife quickly move into reclaimed habitats. Populations of small mammals moved into reclaimed areas within 2 months of planting new vegetation and breeding aggregations of amphibians were noted within settling ponds within the first year. These areas were quickly repopulated by species that favor early successional habitats. Species that favor forested habitats would later move into the reclaimed areas as the postmining vegetation reverts to woodland habitats. The previously approved mine reclamation plan was developed in cooperation with TWRA to assist in meeting their wildlife management goals for the Braden Mountain area. Specific reclamation activities designed to enhance wildlife populations on the reclaimed mine include revegetation of portions of the area with native warm season grasses, retaining sediment basins, planting blocks of mixed trees and shrubs, and planting blocks of hardwood trees. The block hardwood plantings, in addition to accelerating reforestation, would provide connectivity between forested areas downslope from the mine and the hilltop and sideslope areas where coal removal would be by augering.

The proposed action would result in direct impacts to terrestrial animal populations in the project area. However, due to the large amounts of similar habitat adjacent to the project, impacts to terrestrial wildlife in the region would be temporary and insignificant. The project is not expected to result in significant cumulative impacts to terrestrial animal communities, increase populations of exotic or invasive terrestrial animals, or result in significant adverse impacts to migratory birds in the region.

4.3 Endangered and Threatened Species

4.3.1 Plants

One occurrence of a state-listed plant species (goldenseal) was identified on the northern portion of Braden Mountain. At least 116 additional occurrences of this species are known from elsewhere in Tennessee. Therefore, the potential loss of this individual would not significantly impact the viability of this species in Tennessee.

Although areas of marginally suitable habitat were identified for some other state-listed plants reported from the surrounding vicinity, no occurrences of such species (with the exception of the goldenseal mentioned above) were identified during field surveys.

In summary, the proposed action would not result in significant impacts to state-listed plant species, and no federally listed plants would be affected.

4.3.2 Terrestrial Animals

Under the proposed, action TVA would enter a lease agreement with a coal company that would result in surface mining of coal on Braden Mountain. This would result in the modification of about 527 acres of forested and early successional habitats over a 7.4 year period. Of the 22 protected species of terrestrial animals reported from Scott and Campbell Counties, 16 are known to exist or potentially exist on the project site.

The red-cockaded woodpecker, Swainson's warbler, Bewick's wren, hellbender, and Black Mountain dusky salamander were removed from consideration due to the lack of or the limited presence of suitable habitat for these species on the site. Potential hibernating sites for the Indiana bat and the gray bat are provided by abandoned mine portals in the mine permit area. One of these portals was inspected in January 1999 and determined to be unsuitable for use by hibernating Indiana bats or gray bats. No evidence of summer use by gray bats was observed during inspections in the summer of 2002. The only activities proposed in the immediate vicinity of a second portal on the northwest slope of the southern portion of Braden Mountain are sediment basin and access road construction. These activities would not significantly disturb the portal. A third portal, on the east slope of the northern portion of Braden Mountain has a small, mostly collapsed opening and does not appear suitable for use by the Indiana bat or gray bat.

The remaining 16 species are known to exist or potentially exist in early successional and forested habitats in the project area. Construction and operation of the mine could affect individual specimens of most of these species. However, impacts to the species as a whole are expected to be temporary as most of these species would disperse into nearby similar habitats.

Once reclamation activities begin, species that breed or forage in early successional habitats such as four-toed salamander, golden-winged warbler, barn owl, big-eared and small-footed bats, southeastern shrew, hairy-tailed mole, and bog lemming would re-colonize the area. Local populations of some of these species, particularly the golden-winged warbler, would increase, and the reclaimed mine would provide suitable habitat for this warbler for many years. Forest dwelling species would experience a short-term reduction in habitat and local populations of some of these species would be slightly reduced. Up to 69 pairs of cerulean warblers would be affected within the area of surface mining and fills; this number represents a small fraction of the population of this species in the RBWMA as well as in the Cumberland Mountains. Portions of the mined area would be reforested during reclamation and these areas would provide suitable habitat for many forest-dwelling species. Due to the large amounts of suitable habitats nearby, impacts to these species would be temporary and insignificant and their population viability on RBWMA would not be affected.

During the review of the OSM Environmental Review of the Gatliff Coal permit, USFWS, TVA, and TWRA determined that there would be no significant impacts to any federally listed species if certain commitments were followed. These commitments are listed in the FONSI issued by TVA in 1999 (TVA 1999) and incorporated into the currently proposed action. They are designed to establish specific reclamation activities to protect the

endangered Indiana bat and other species of wildlife. With the implementation of these measures, the proposed action is not likely to adversely effect threatened and endangered terrestrial animals.

4.3.3 Aquatic Animals

Of the nine endangered, threatened, or otherwise sensitive aquatic species potentially occurring in the project area, only the blackside dace, the arrow darter, and the emerald darter are present in streams potentially impacted by mining Braden Mountain. These species are reported from Terry Creek near its confluence with Elk Fork Creek, and from the Straight Fork system. The Terry Creek headwaters consist of three streams whose surface water is supplied by drainage from the Braden Mountain site; Stillhouse Branch, Frogpond Hollow, and Hudson Branch. Straight Fork Creek is supplied by several streams that drain the Braden Mountain area, including Jake Branch, Cross Branch, and Straight Fork Creek.

Potential impacts to these three streams resulting from the proposed action are discussed in the Cumulative Hydrologic Impact Assessment (CHIA) prepared by Gatliff Coal Company in the previous review of this project. These potential impacts are discussed in CHIA No. 101, Cumulative Impact Area (CIA) No. 10, Subarea No. 6B (Elk Fork Creek system) and CHIA No. 84, CIA No. 8, Subarea No. 6B (Straight Fork). This analysis considers all existing and anticipated mining operations and addresses potential cumulative hydrologic impacts to CIA 10, Subarea 6B (Elk Fork Creek), and CIA No. 8, Subarea 6B (Straight Fork Creek).

This assessment concludes that while there is slight potential for acid/toxic drainage, and increased sediment loads into Terry Creek, Stillhouse Branch, Frogpond Hollow, and Hudson Branch in the Elk Fork system, and Jake Branch, Cross Branch, and Straight Fork in the Straight Fork system, the effects would be minimized by measures to be implemented during active mining, and during reclamation of the site. Surface-water monitoring of these streams, and of the settling basins above these streams, would be conducted in accordance with NPDES permit requirements to ensure that water quality impacts to receiving streams are minimized

This hydrological analysis indicates that water quality in these streams should remain within acceptable limits and would not significantly exceed conditions favored by these species. Therefore, this proposed mining activity would likely result in only short-term, insignificant impacts to aquatic life in Terry Creek and Straight Fork, including blackside dace, arrow darter, and emerald darter.

Construction of the haul roads would have potential to impact populations of blackside dace, arrow darter, and emerald darter in the Straight Fork system. These potential impacts would result primarily from run-off of silt generated by road construction and maintenance activities.

Construction and maintenance of the haul road would be performed in accordance with appropriate Best Management Practices. Use of measures to control run-off from the haul road, and to minimize ground disturbance during construction would likely result in only insignificant impacts to blackside dace, arrow darter, and emerald darter in Straight Fork.

4.4 Surface Water, Groundwater, and Aquatic Ecology

Potential impacts to surface water and aquatic ecology resulting from the proposed mining activities include increased sediment in surface runoff, acid/toxic drainage, altered flow regimes, and impacts to streams from construction of hollow fills. Potential impacts to groundwater include changes in availability and flow regimes, and changes in water quality.

Runoff from the proposed mine site would drain into three watersheds (Straight Fork, Elk Fork, and Buffalo Creek) and runoff from a part of the proposed haul roads would drain into a fourth watershed (Cove Creek). OSM (1999) has prepared Cumulative Hydrologic Impact Assessments (CHIAs) for these four watersheds. No surface water users or groundwater users would be affected in any of the four watersheds.

Measures incorporated into the mine plan to minimize hydrologic impacts include use of hay bales and filter fabric fence, installation of sediment basins with controlled discharges, periodic sampling of water in sediment basins and chemical treatment as necessary. Although the majority of the strata to be disturbed by mining exhibit a positive net acid base accounting (i.e., have sufficient buffering capacity to prevent acid production), the coal seams are potentially acid producing. The proposed mine plan includes a hydrologic reclamation plan and a toxic material handling plan. Mined coal would be promptly removed from the site and overburden would be blended when backfilled to minimize potential acidic problems. Sediment in basins would be sampled prior to removal and treated according to the mine plan. Sediment basins would be retained following reclamation at the discretion of TWRA.

Groundwater quality in the proposed mine area is highly variable and iron and manganese concentrations sometimes exceed EPA standards for public water systems. Any impacts to groundwater quality would be localized and not affect groundwater users.

The CHIAs show that impacts to surface water would be insignificant. Within each of the four watersheds, there would be a small increase in sediment loading during mining. Following mining, the sediment yield load value would decrease to levels similar to or less than pre-mining values. pH values would be unchanged or slightly decrease; the greatest change would occur in the Elk Fork watershed, where the minimum anticipated pH would be 7.3, a near-neutral value within acceptable EPA limits for domestic water supplies and freshwater aquatic life. Increases in total dissolved solids, dissolved iron, and dissolved manganese levels would be small and anticipated concentrations would remain within EPA standards in the Elk Fork and Buffalo Creek watersheds.

Total dissolved solids and dissolved manganese concentrations in the Straight Fork watershed presently exceed EPA standards under flow conditions; these problems are caused in large part by drainage from old mine openings in the Big Mary coal seam. The proposed mining, which includes reclamation of orphan mine areas, would not result in further degradation of Straight Fork.

A few short segments of intermittent streams and wet weather conveyances, as well as a few small ponds, would be directly impacted by mining activities. Stream channels would be restored during reclamation, and no long-term changes in runoff are anticipated. Sediment basins would replace habitat currently present in ponds. Overall impacts to aquatic ecology would be insignificant.

4.5 Managed Areas and Ecologically Significant Sites

The proposed action would result in the operation of a coal surface mine within the Royal Blue Wildlife Management Area. This would affect wildlife habitat and recreational use, including hunting and off-road vehicle use, within the proposed mine permit area. The proposed mine permit area comprises a small portion of RBWMA (less than 2%) and the revegetation plan was developed with the assistance of TWRA. The main roads into the area from Highway 63 at Poteet Gap and from Highway 297 at Elk Gap would remain open to the public. The Gunsight Mountain road, which passes through the southern portion of the Braden Mountain area, may be closed during active mining operations. Impacts to the RBWMA are expected to be temporary and insignificant.

No impacts to the Cumberland Forest Public Hunting Area, or to Stinking Creek, listed on the National Rivers Inventory, are anticipated. Impacts to the Southern Cumberland Mountains Important Bird Area, which includes RBWMA and other nearby areas, are expected to be temporary and insignificant.

4.6 Visual Resources

Visual consequences are examined in terms of visual changes between the existing landscape and proposed actions, sensitivity of viewing points available to the general public, their viewing distances, and visibility of proposed changes. Scenic integrity indicates the degree of intactness or wholeness of the landscape character. These measures help identify changes in visual character based on commonly held perceptions of landscape beauty, and the aesthetic sense of place. The foreground, middleground, and background viewing distances were previously described in the affected environment section.

Site preparation and initial mining activities would adversely impact the visual landscape character of the proposed mine permit area by removing forest cover, modifying landforms, and increasing truck traffic along local access roads. Some fill areas would have a series of stair-stepped plateaus with somewhat gentler slopes than presently exist. These features would increase adverse visual contrast, while reducing unity, coherence, and harmony in the landscape during the initial construction period. Scenic integrity would be lower. Most of these visual impacts would lessen over time as the area is revegetated.

Some proposed mining operations would be visible to recreational users of the Braden Mountain and Limestone Ridge areas of RBWMA. Portions of the mine area may also be briefly visible to motorists on Highways 63 and 297, as well as Interstate 75. The mine area would be in the middleground or background of views from these roads, and visual details would be weak. Views from these highways already include highwalls of unreclaimed mines, as well as elements such as communication towers and, on Interstate 75, billboards. Overall visual impacts would be insignificant and mostly short-term.

4.7 Cultural Resources

A Phase I Cultural Resource survey of the APE identified two rockshelters with a potential to contain archaeological sites. Further investigations of these areas were conducted and two archaeological sites were identified (40CP134 and 40CP135). Material from these sites was considered insignificant and neither site is recommended as potentially eligible for the NRHP. TVA has determined that the proposed project would have no effect on any historic properties on or eligible for NRHP listing. A letter of TVA's findings and determinations was

sent to the Tennessee State Historic Preservation Officer on October 18, 2002. Similar letters were sent to the Eastern Band of the Cherokee Indians on October 23, 2002.

5 SUPPORTING INFORMATION

5.1 Literature Cited

Allsbrooks, D. W., D. K. Fowler, and L. J. Fowler. 1983. Notes on the hairy-tailed mole (*Parascalops breweri*) in the Cumberland Mountains of Tennessee. J. Tenn. Acad. Science 58:23-24.

Baird, A, L. DeVours, M. McGhee, G. Miller, and C. Winfrey. 1998. Campbell County. Pp. 117-118 *In* C. Van West, ed., The Tennessee Encyclopedia of History and Culture. Tennessee Historical Society, Rutledge Hill Press, Nashville.

Binnicker, M. D. 1998. Scott County. Pp. 831-832 *In* C. Van West, ed., The Tennessee Encyclopedia of History and Culture. Tennessee Historical Society, Rutledge Hill Press, Nashville.

Braun, E. L. 1950. Deciduous Forests of Eastern North America. The Blakiston Company, Philadelphia

Etnier, D. A., and W. C. Starnes. 1993. The fishes of Tennessee. Univ. Tennessee Press, Knoxville.

Fenneman, N. M. 1938. Physiography of the Eastern United States. McGraw-Hill Book Company, Inc., New York.

Gatliff Coal Company. 1999. Braden Mountain Mine No. 16, Permit Application No. TN-012. Submitted to Office of Surface Mining, Reclamation, and Enforcement, Knoxville, Tennessee.

Hinkle, C.R., W.C. McComb, J.M. Safley, Jr. and P.A. Schmalzer. 1993. Mixed Mesophytic Forests. Pp. 203-253 *In* Martin, W.H., S.G. Boyce, and A.C. Echternacht, eds. Biodiversity of the Southeastern United States: Upland Terrestrial Communities. John Wiley & Sons, Inc., New York.

Laudermilk, E. L., and Cicerello, R. R. 1998. Upper Cumberland River Drainage, Kentucky Fish Collection Catalog (1982–1994). Kentucky Nature Preserves Commission, Frankfort, Kentucky.

National Audubon Society. 2002a. Tennessee's Important Bird Areas Program. Available: http://www.audubon.org/bird/iba/tn.html

National Audubon Society. 2002b. What is an Important Bird Areas? Available: http://www.audubon.org/bird/iba/iba_intro.html

National Park Service (NPS). 2002. Rivers and Trails: Tennessee Segments. Available: http://www.nrc.nps.gov/programs/rtca/nri/STATES/tn.html

NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6 . Arlington, Virginia, USA: NatureServe. *http://www.natureserve.org/explorer*. (Accessed: September 3, 2002).

Nicholson, C. P. 1997. Atlas of the breeding birds of Tennessee. Univ. Tennessee Press, Knoxville.

O'Bara, C. J. 1988. A status survey of the upper Cumberland Johnny darter, *Etheostoma nigrum susanae*. Project report, U.S. Fish and Wildlife Service, Office of Endangered Species, Asheville, North Carolina.

Office of Surface Mining Reclamation and Enforcement. 1999. Environmental Assessment and Finding of No Significant Impact – Gatliff Coal Company Braden Mountain Area No. 16, OSM Permit No. TN-012. Office of Surface Mining Reclamation and Enforcement, Knoxville, Tennessee.

Pletak, L. M., and J. L. Holland. 2002. Phase I Archaeological Survey of 400 Acres on Braden and Adkins Mountains, Campbell and Scott Counties, Tennessee. Prepared by TRC, Inc. Report on file in the Cultural Resource Group, Tennessee Valley Authority, Norris, TN.

Smalley, G. W. 1984. Classification and evaluation of forest sites in the Cumberland Mountains. USDA Forest Service Gen. Tech. Rep. SO-50, New Orleans, Louisiana.

Tennessee Department of Environment and Conservation. 2002. Draft year 2002 303(d) list. Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Nashville. http://www.state.tn.us/environment/wpc/2002303ddraft.pdf (Accessed September 3, 2002).

Tennessee Valley Authority. 1981. Rapid restoration of biological productivity to coal surface mines: Annual biological monitoring report. Division of Land and Forest Resources, Norris, TN.

Tennessee Valley Authority. 1999. Finding of No Significant Impact – Gatliff Coal Company Braden Mountain Area No. 16 Tract No. XEKCR-38L, Campbell and Scott Counties, Tennessee. Tennessee Valley Authority, Knoxville.

Tennessee Wildlife Resources Agency (TWRA). 2001. Royal Blue Wildlife Management Area. [Brochure/Map]. Nashville, TN: TWRA.

5.2 Preparers

Preparer	Contribution
John T. Baxter, Jr.	Endangered and Threatened Species
J Leo Collins	Vegetation, Endangered and Threatened Species
Nancy D. Fraley	Managed Areas and Ecologically Significant Sites
Groton, James G. (contractor)	Vegetation, Endangered and Threatened Species
Travis Hill Henry	Wildlife, Endangered and Threatened Species
Charles P. Nicholson	EA Compilation, Wildlife, Endangered and Threatened Species
George E. Peck	Aquatic Ecology
W. Chett Peebles	Visual Resources
Erin E. Pritchard	Cultural Resources
Carolyn L. Wells	Vegetation, Endangered and Threatened Species
Richard W. Yarnell	Cultural Resources

Appendix 1

Endangered, threatened, or otherwise listed plant species known to occur in Campbell and Scott Counties, Tennessee.

Common name	Scientific name	Federal status	State status
Alabama grapefern	*Botrychium jenmanii*		Threatened
Alder-leaf buckthorn	*Rhamnus alnifolia*		Endangered
American barberry	*Berberis canadensis*		Special Concern
Barbara buttons*	*Marshallia grandiflora*		Endangered
Bristle fern	*Trichomanes boschianum*		Threatened
Canada lily	*Lilium canadense*		Threatened
Capillary beakrush	*Rhynchospora capillacea*		Endangered-P[1]
Climbing fumatory	*Adlumia fungosa*		Threatened
Cumberland rosemary	*Conradina verticillata*	Threatened	Threatened
Cumberland sandwort	*Arenaria cumberlandensis*	Endangered	Endangered
False foxglove*	*Aureolaria patula*		Threatened
Ginseng	*Panax quinquefolius*		Special Concern-CE
Goldenseal	*Hydrastis canadensis*		Special Concern-CE[2]
Green-and-gold	*Chrysogonum virginianum*		Threatened
Kentucky rosin-weed	*Silphium wasiotense*		Endangered
Lady-slipper*	*Cypripedium kentuckiense*		Endangered
Meehan mint	*Meehania cordata*		Threatened
Northern white cedar	*Thuja occidentalis*		Special Concern
Ozark bunchflower	*Melanthium woodii*		Endangered
Pale corydalis	*Corydalis sempervirens*		Endangered
Panic-grass*	*Panicum ensifolium*		Special Concern
Pink lady-slipper	*Cypripedium acaule*		Endangered-CE[3]
Pondweed*	*Potamogeton tennesseensis*		Threatened
Rockcastle aster	*Aster saxicastellii*		Endangered
Roundleaf bitter-cress	*Cardamine rotundifolia*		Special Concern
Roundleaf fameflower	*Talinum teretifolium*		Threatened
Sandreed grass*	*Calamovilfa arcuata*		Endangered
Smoothleaf honeysuckle	*Lonicera dioica*		Special Concern
Southern rein orchid	*Platanthera flava* var *flava*		Special Concern
Spike-rush*	*Eleocharis intermedia*		Special Concern
Spotted coral-root	*Corallorhiza maculata*		Threatened
Stonecrop*	*Sedum nevii*		Endangered
Sullivantia	*Sullivantia sullivantii*		Endangered
Sweet-fern	*Comptonia peregrina*		Endangered
Tawny cotton-grass	*Eriophorum virginicum*		Threatened
Virginia spiraea	*Spiraea virginiana*	Threatened	Endangered
White snakeroot*	*Ageratina luciae-brauniae*		Threatened
Wild ginger*	*Hexastylis contracta*		Special Concern
Witch-alder*	*Fothergilla major*		Threatened
Wood lily	*Lilium philadelphicum*		Endangered

*The common name listed is routinely applied to more than one member of this genus.
[1] Endangered-P – endangered, potentially extirpated.
[2] Special Concern-CE = special concern due to commercial exploitation.
3 Endangered-CE = endangered due to commercial exploitation.

BIRDS OF CONSERVATION CONCERN 2002

U.S. Fish and Wildlife Service
Division of Migratory Bird Management
Arlington, Virginia

December 2002

BIRDS OF CONSERVATION CONCERN 2002

Prepared by

U.S. Fish and Wildlife Service
Division of Migratory Bird Management
Arlington, Virginia

Preferred citation:
U.S. Fish and Wildlife Service. 2002. Birds of conservation concern 2002. Division of Migratory Bird Management, Arlington, Virginia. 99 pp. [Online version available at <http://migratorybirds.fws.gov/reports/bcc2002.pdf>]

Appendix B. Summary of Species Occurrences on BCR, USFWS Region, and National Lists in BCC 2002, Arranged Alphabetically by Common Group Name.

Name, Common	BCRs	USFWS Regions	National
Akekee	67	1(b)	X
Akikiki	67	1(b)	X
Alauahio, Maui	67	1(b)	X
Albatross, Black-footed	5, 32, 67, 68	1(a,b,c), 7	X
Albatross, Laysan	67, 68		
Amakihi, Hawaii	67	1(b)	
Amakihi, Kauai	67	1(b)	
Amakihi, Oahu	67	1(b)	
Ani, Smooth-billed	31	4(a)	
Anianiau	67	1(b)	X
Apapane	67	1(b)	X
Auklet, Cassin's	32		
Auklet, Whiskered	1	7	X
Avocet, American	9		
Beardless-Tyrannulet, Northern	34, 36, 37	2	
Becard, Rose-throated	36	2	
Bittern, American	11, 12, 31, 37	3	
Blackbird, Rusty	22, 24, 26, 29	3	
Blackbird, Tricolored	9, 15, 32, 33	1(a)	X
Black-Hawk, Common	34, 35	2	
Bobolink	12, 13, 23	3, 6	
Booby, Brown	69	4(b)	
Booby, Masked	69	4(b)	
Booby, Red-footed	69	4(b)	
Bunting, Lark	18, 33, 34, 35, 36	2	
Bunting, McKay's	1, 2	7	X
Bunting, Painted	20, 21, 26, 27, 31, 35, 36, 37	2, 4(a)	X
Bunting, Varied	20, 34, 35, 36	2	
Chickadee, Black-capped	28		
Chuck-will's-widow	22, 25, 27, 28, 29, 31	3, 4(a)	X
Coot, Caribbean	69	4(b)	
Cormorant, Red-faced	1, 2		
Crake, Spotless	68	1(c)	X
Crake, Yellow-breasted	69	4b	
Crossbill, Red	28		
Cuckoo, Black-billed	11, 13, 17, 22, 23, 28	3, 6	X
Cuckoo, Mangrove	31	4(a)	
Cuckoo, Yellow-billed	5, 9, 10, 16, 32, 33, 34, 35	1(a), 2	X
Curlew, Bristle-thighed	2, 67, 68	1(b,c), 7	X
Curlew, Long-billed	5, 9, 10, 11, 17, 18, 19, 21, 32, 33, 35, 36, 37	1(a), 2, 4(a), 6	X
Dickcissel	17, 22, 23, 36	3, 6	X

Dowitcher, Short-billed	2, 4, 5, 12, 22, 23, 27, 31, 32, 37	1(a), 3, 7	X
Duck, Masked	69	4(b)	
Duck, Ruddy	69	4(b)	
Dunlin	3	7	
Eagle, Golden	9, 10, 16, 17	6	
Egret, Reddish	27, 31, 37	2, 4(a)	X
Elepaio	67	1(b)	X
Falcon, Peregrine	1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 69	1(a), 2, 3, 4(a,b), 5, 6, 7	X
Falcon, Prairie	9, 10, 16, 17, 18, 32	1(a), 6	X
Fantail, Rufous	68	1(c)	
Flicker, Gilded	33, 34	2	
Flycatcher, Acadian	22, 23, 25, 28	3	
Flycatcher, Buff-breasted	34	2	
Flycatcher, Olive-sided	5, 14, 15, 28	1(a), 4(a), 5	X
Flycatcher, Puerto Rican	69	4(b)	
Flycatcher, Scissor-tailed	19, 21, 25	2	X
Frigatebird, Lesser	68		
Frigatebird, Magnificent	31, 69	4(b)	
Fruit-Dove, Crimson-crowned	68		
Fruit-Dove, Many-colored	68	1(c)	X
Fruit-Dove, Mariana	68	1(c)	
Godwit, Bar-tailed	1, 2, 3	7	X
Godwit, Hudsonian	2, 4, 11, 13, 14, 19, 21, 22, 23, 25, 26, 30, 37	2, 3, 4(a), 5, 7	X
Godwit, Marbled	2, 5, 9, 10, 11, 12, 13, 16, 17, 22, 23, 26, 27, 30, 31, 32, 33, 37	1(a), 3, 4(a), 5, 6, 7	X
Golden-Plover, American	2, 3, 4, 9, 10, 17, 18, 19, 21, 37	2, 6, 7	X
Golden-Plover, Pacific	2, 67, 68	1(b,c), 7	X
Goldfinch, Lawrence's	32, 33	1(a)	X
Goshawk, Northern	5, 34		
Ground-Dove, Common	27, 31		
Ground-Dove, Friendly	68	1(c)	X
Ground-Dove, White-throated	68	1(c)	
Harrier, Northern	11, 16, 18, 19, 21, 35, 36, 37	2, 6	X
Hawk, Ferruginous	9, 10, 11, 16, 17, 18, 34, 35	2, 6	X
Hawk, Gray	34	2	
Hawk, Harris's	36		
Hawk, Short-tailed	27, 31	4(a)	

79

Hawk, Swainson's	9, 10, 11, 16, 19, 32, 36	1(a), 3, 6	X
Hawk, White-tailed	37	2	
Heron, Little Blue	19, 21, 25, 26, 27, 31	4(a)	X
Honeyeater, Wattled	68		
Hummingbird, Broad-billed	34	2	
Hummingbird, Buff-bellied	36, 37	2	
Hummingbird, Costa's	34		
Hummingbird, Lucifer	34, 35	2	
Hummingbird, Rufous	5, 15		X
Ibis, White	31, 37		
Iiwi	67	1(b)	X
Jay, Pinyon	16		
Kestrel, American	25, 27, 31		
Kite, Mississippi	19, 26		
Kite, Swallow-tailed	25, 26, 27, 31, 37	2, 4(a)	X
Kittiwake, Red-legged	1	7	X
Knot, Red	5, 27, 30, 31, 32, 33, 37	1(a), 2, 4(a), 5	X
Koel, Long-tailed	68		
Lark, Horned	5	1(a)	X
Limpkin	27, 31, 69	4(a,b)	X
Longspur, Chestnut-collared	11, 16, 17, 18, 19, 20, 21, 34, 35, 36	2, 6	X
Longspur, McCown's	10, 11, 17, 18, 19, 20, 35, 36	2, 6	X
Longspur, Smith's	3, 19, 21, 22, 24, 25, 26	2, 4(a), 7	X
Loon, Red-throated	2		
Loon, Yellow-billed	2, 3, 5	7	X
Lorikeet, Blue-crowned	68		
Mao	68		
Murrelet, Ancient	1, 2		
Murrelet, Kittlitz's	1, 2, 5	7	X
Murrelet, Marbled	1, 2, 5	7	X
Murrelet, Xantus's	32	1(a)	X
Myzomela, Cardinal	68		
Myzomela, Micronesian	68		
Noddy, Blue-gray	67, 68	1(b, c)	
Nuthatch, Brown-headed	25, 27, 31	2, 4(a)	X
Nuthatch, Pygmy	10		
Omao	67	1(b)	X
Oriole, Altamira	36	2	
Oriole, Audubon's	36, 37	2	
Oriole, Baltimore	30		
Oriole, Greater Antillean	69	4(b)	
Oriole, Hooded	35, 36, 37	2	
Oriole, Orchard	20, 22, 25, 26, 27		
Owl, Burrowing	9, 11, 16, 17, 18, 27, 31, 32, 33, 35, 36	1, 2, 4, 6	X

80

Owl, Elf	20, 33, 34, 35, 36	2	
Owl, Flammulated	5, 9, 10, 15, 16, 32, 34,35	1(a), 2, 6	X
Owl, Long-eared	23		
Owl, Northern Saw-whet	28		
Owl, Short-eared	11, 16, 17, 22, 23, 24, 25, 26, 28, 30, 37, 67, 69	3, 4(a), 5, 6	X
Owl, Spotted	15, 32		
Oystercatcher, American	27, 30, 31, 37, 69	2, 4(a,b), 5	X
Oystercatcher, Black	1, 5, 32	1(a), 7	X
Parula, Northern	26, 27		
Parula, Tropical	36, 37	2	
Pelican, American White	26		
Petrel, Black-capped	27, 31	4(a)	X
Petrel, Herald	68		
Petrel, Phoenix	68	1(c)	X
Petrel, Tahiti	68	1(c)	
Pewee, Greater	34	2	
Pewee, Lesser Antillean	69	4(b)	
Phalarope, Wilson's	9, 10, 11, 12, 16, 17, 19, 22, 23	3, 6	X
Pigeon, Red-billed	36	2	
Pigeon, White-crowned	31, 69	4(a,b)	
Pintail, White-cheeked	69	4(b)	
Pipit, Sprague's	11, 16, 17, 18, 19, 20, 21, 25, 34, 35, 36, 37	2, 6	X
Plover, Mountain	10, 16, 17, 18, 19, 20, 32, 33, 34, 35, 36	1(a), 2, 6	X
Plover, Snowy	9, 10, 16, 18, 19, 27, 31, 33, 34, 35, 36, 37, 69	1(a), 2, 4(a,b), 6	X
Plover, Wilson's	27, 30, 31, 37, 69	2, 4(a,b)	X
Prairie-Chicken, Lesser	18, 19	2, 6	X
Pygmy-Owl, Ferruginous	36, 37	2	
Pyrrhuloxia	36		
Quail-Dove, Bridled	69	4(b)	
Quail-Dove, Key West	69	4(b)	
Rail, Black	19, 22, 27, 29, 30, 31, 32, 33, 37, 69	1(a), 2, 3, 4(a,b), 5, 6	X
Rail, Buff-banded	68		
Rail, Yellow	9, 10, 11, 12, 14, 26, 27, 31, 37	1(a), 2, 3, 4(a), 5, 6	X
Razorbill	14, 30	5	X
Sage-Grouse, Greater	9	1	X
Sage-Grouse, Gunnison	16	6	X
Sanderling	9, 10, 11, 17		
Sandpiper, Buff-breasted	3, 11, 12, 13, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 36, 37	2, 3, 4(a), 5, 6, 7	X

Sandpiper, Purple	14, 30	5	
Sandpiper, Rock	1, 2, 4, 5	7	X
Sandpiper, Semipalmated	27, 31, 69	4(b)	
Sandpiper, Solitary	9, 10, 11, 16, 18, 19	6	X
Sandpiper, Stilt	12, 22, 23, 24, 25, 26, 27, 31, 36, 37, 69	2, 3, 4(a,b)	X
Sandpiper, Upland	10, 11, 12, 13, 17, 22, 23, 28, 29, 30	3, 5, 6	X
Sandpiper, White-rumped	11		
Sapsucker, Red-naped	10, 17	1(a), 6	X
Sapsucker, Williamson's	9, 10, 15, 16	1(a), 6	X
Sapsucker, Yellow-bellied	28		
Screech-Owl, Whiskered	34	2	
Scrub-Jay, Island	32		X
Shearwater, Audubon's	27, 31, 69	4(a,b)	
Shearwater, Christmas	67, 68		
Shrike, Loggerhead	9, 10, 11, 20, 21, 22, 23, 31, 32, 33, 35, 36, 37	1(a), 2, 3, 5, 6	X
Shrikebill, Fiji	68	1(c)	
Skimmer, Black	27, 30, 31, 32, 33, 37	1(a), 2, 4(a), 5	X
Sparrow, Bachman's	22, 24, 25, 27, 28, 29, 31	2, 3, 4(a)	X
Sparrow, Baird's	11, 17, 34, 35	2, 6	X
Sparrow, Black-chinned	32, 33, 34, 35	2	X
Sparrow, Botteri's	34, 37	2	
Sparrow, Brewer's	9, 10, 17	1(a), 6	X
Sparrow, Cassin's	18, 19, 20, 35, 36	2, 6	X
Sparrow, Field	20, 21, 22		
Sparrow, Grasshopper	11, 17, 22, 34, 37, 69	4(b), 6	X
Sparrow, Harris's	19, 20, 21, 25, 36	2	X
Sparrow, Henslow's	11, 12, 13, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 37	2, 3, 4(a), 5, 6	X
Sparrow, Le Conte's	11, 12, 17, 19, 20, 21, 22, 24, 25, 26, 27, 37	2, 3, 4(a), 6	X
Sparrow, Nelson's Sharp-tailed	11, 14, 27, 31, 37	2, 3, 4(a), 5, 6	X
Sparrow, Rufous-crowned	20		
Sparrow, Rufous-winged	33, 34	2	X
Sparrow, Sage	9, 16, 33, 34, 35	2	
Sparrow, Saltmarsh Sharp-tailed	27, 30, 31	4(a), 5	X
Sparrow, Seaside	27, 30, 31, 37	2, 4(a), 5	X
Sparrow, Song	32		
Sparrow, Vesper	5		
Starling, Samoan	68		
Storm-Petrel, Ashy	32	1(a)	X
Storm-Petrel, Band-rumped	67	1(b)	X
Storm-Petrel, Polynesian	68	1(c)	
Storm-Petrel, Tristram's	67	1(b)	

Surfbird	2, 4, 5	7	X
Swamphen, Purple	68		
Swift, Black	5, 9, 10, 15, 16, 32, 69	1(a), 4b, 7	X
Swiftlet, White-rumped	68		
Tern, Aleutian	1, 2, 5	7	X
Tern, Arctic	1, 2, 5	7	
Tern, Black	12, 23, 27, 31, 37	3	
Tern, Caspian	5		
Tern, Common	12, 13, 14, 22, 23, 27, 30, 31	3, 5	X
Tern, Elegant	32	1(a)	
Tern, Gull-billed	27, 31, 32, 33, 36, 37	1, 2, 4(a)	X
Tern, Least	27, 30, 31, 37, 69	2, 4(a,b), 5	X
Thrasher, Bendire's	16, 33, 34, 35	2	X
Thrasher, Crissal	16, 33, 34, 35	1(a), 2	X
Thrasher, Curve-billed	36		
Thrasher, Le Conte's	32, 33	1(a), 2	X
Thrush, Bicknell's	14, 69	4(b), 5	X
Thrush, Wood	12, 14, 22, 23, 24, 25, 26, 27, 28, 29, 30	3, 4(a), 5	X
Towhee, Spotted	32		
Trogon, Elegant	34	2	
Tropicbird, Red-billed	69	4(b)	
Tropicbird, White-tailed	69	4(b)	
Turnstone, Black	2, 5, 32	1(a), 7	X
Verdin	36		
Vireo, Bell's	18, 19, 20, 21, 22, 23, 24, 25, 26, 33, 34, 35, 36, 37	2, 3, 4(a), 6	X
Vireo, Black-whiskered	31	4(a)	
Vireo, Gray	9, 16, 20, 33, 34, 35	1(a), 2, 6	X
Vireo, Puerto Rican	69	4(b)	
Warbler, Adelaide's	69	4(b)	
Warbler, Arctic	2, 3, 4	7	
Warbler, Bay-breasted	14	5	
Warbler, Blackpoll	2, 14	7	
Warbler, Black-throated Blue	12, 69	3, 4(b)	
Warbler, Black-throated Gray	16, 34	2	
Warbler, Black-throated Green	27		
Warbler, Blue-winged	22, 23, 24, 30	3	
Warbler, Canada	12, 13, 14, 30	3, 5	X
Warbler, Cape May	12, 14	3	
Warbler, Cerulean	12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30	2, 3, 4(a), 5	X
Warbler, Chestnut-sided	14		
Warbler, Colima	35	2	
Warbler, Connecticut	12	3	
Warbler, Elfin-woods	69	4(b)	X

Warbler, Golden-winged	12, 13, 23, 28, 30	3, 4(a), 5	X
Warbler, Grace's	16, 34, 35	2	X
Warbler, Kentucky	20, 21, 22, 23, 25, 28, 29, 30, 37	2, 3, 5	X
Warbler, Olive	34	2	
Warbler, Prairie	24, 25, 27, 28, 29, 30, 31, 69	2, 3, 4(a,b), 5	X
Warbler, Prothonotary	20, 21, 22, 25, 26, 28, 29, 37	2, 4(a)	X
Warbler, Red-faced	34, 35	2	
Warbler, Swainson's	21, 24, 25, 26, 27, 28, 29, 37	2, 3, 4(a), 5	X
Warbler, Virginia's	9, 10, 16	6	
Warbler, Worm-eating	21, 22, 24, 25, 28, 30, 69	2, 3, 4(a,b), 5	X
Warbler, Yellow	31, 33, 69	4(b)	
Warbler, Yellow-throated	31		
Waterthrush, Louisiana	22, 24, 25, 28, 69	2, 3, 4(b)	X
Waterthrush, Northern	69	4(b)	
Whimbrel	2, 3, 4, 5, 9, 10, 12, 13, 14, 27, 30, 31, 32, 33, 37	1(a), 3, 4(a), 5, 7	X
Whip-poor-will	13, 22, 24, 28, 29, 30	5	X
Whistling-Duck, West Indian	69	4(b)	
White-eye, Bridled	68	1(c)	X
White-eye, Golden	68	1(c)	
Willet	11		
Woodpecker, Arizona	34	2	
Woodpecker, Gila	33		
Woodpecker, Ladder-backed	20		
Woodpecker, Lewis's	5, 9, 10, 15, 16, 17, 18, 32, 34	1(a), 2, 6	X
Woodpecker, Red-headed	11, 13, 19, 21, 22, 23, 24, 25, 26, 28, 30, 31, 37	2, 3, 4(a), 5, 6	X
Woodpecker, White-headed	5, 9, 10, 15, 32	1(a), 6	X
Wren, Bewick's	22, 24, 25, 27, 28, 29, 37	3, 4(a), 5, 6	X
Wren, Cactus	32, 36		
Wren, Marsh	30		
Wren, Sedge	13, 23, 26, 28, 30, 37	2, 5	X
Yellowlegs, Greater	22, 23		
Yellowthroat, Common	32		

FWS Comments on 9/20/02 Draft of Chapter IV (Alternatives)

The Fish and Wildlife Service has reviewed the September 20 draft of Chapter IV for the MTM/VF EIS. We previously proposed a four-alternative scenario that included consideration (not selection) of at least one alternative to restrict, or otherwise constrain, most valley fills to ephemeral stream reaches by employing the significant degradation or advance identification (ADID) provisions of the 404(b)(1) Guidelines. Our intent was to provide for consideration of at least one alternative that "developed agency policies, guidance, and coordinated decision-making processes" and minimized the impacts of mountaintop mining and valley filling on waters of the U.S. and fish and wildlife resources; a two-part goal established by the settlement agreement that we believe the three-alternative approach failed to accomplish. Our proposed approach was subsequently voted down within the Executive Committee in part because a decision appears to have been made that even relatively minor modifications of current regulatory practices are now considered to be outside the scope of the EIS process. The current three-alternative framework was adopted, but incorporated only a very limited ADID concept that does not meet our objectives. The September 20 draft retains the deficiencies contained in the previous three-alternative framework, and the full draft of Chapter IV confirms our concerns. Therefore, we continue to object to the use of this approach. However, since the agencies are proceeding based on adoption of this approach, we do not believe that elevating this issue for higher level review would be helpful or productive. The following general comments are intended to provide you only with our sense of how problematic the proposed alternatives framework has become.

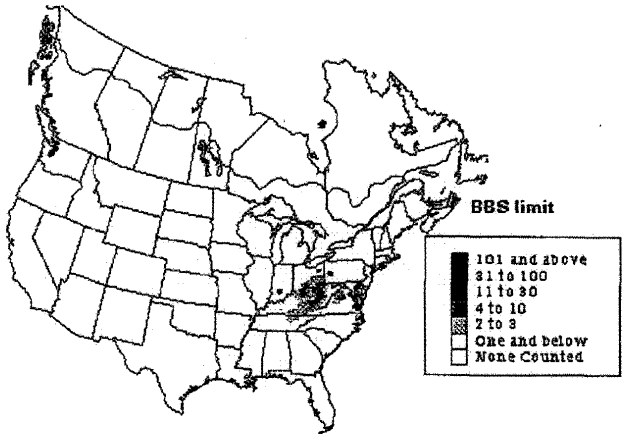
Now that the basic concept has been more fully elaborated in the September 20 write-up, it is painfully obvious to us that there are no differences between the three action alternatives that can be analyzed in a NEPA context. Table IV-2 (Comparison of Alternatives) underscores this fundamental shortcoming: Each of the three action alternatives offers only meager environmental benefits (thus a "two-star rating," as with a budget hotel or B movie), and there is no difference between them -- even in their degree of meagerness. The relative economic effects of these alternatives are similarly indistinguishable. The reader is left wondering what genuine actions, if any, the agencies are actually proposing.

Table IV-1 states that the alternatives would "*minimize*" the adverse effects of mountaintop mining and valley fill construction; the "analysis of alternatives" section states that "all three alternatives will result in greater environmental protection that will fulfill the agencies EIS objectives." As we have stated repeatedly, it is the Service's position that the three "action" alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection, as stipulated in the settlement agreement, let alone protection that can be quantified or even estimated in advance for purposes of a NEPA analysis. Without providing clear indications of how the Corps would evaluate projects and reach decisions through either the nationwide permit or individual permit processes, and how the SMCRA agency would make its decisions under Alternative 3, the public will not be able to deduce whether impacts to waters under any of these alternatives would be any different than the no action alternative. Furthermore, the results of implementing individual action items whose "actions" do not produce an outcome ("will continue to evaluate," "will work with the states to establish," "will continue to assess," "will continue to refine"), and of developing "Best Management Practices" whose use will be voluntary, are not likely to effect quantifiable, or even recognizable, improvements in environmental protection.

As we have already discussed *ad nauseum*, NEPA regulations describe the Alternatives section as "the heart of the environmental impact statement" which, in combination with the Affected Environment and Environmental Consequences sections, should "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." Even after considering the necessarily broad, programmatic nature of this document, we have clearly failed to meet these standards.

The EIS technical studies carried out by the agencies -- at considerable taxpayer expense -- have documented adverse impacts to aquatic and terrestrial ecosystems, yet the proposed alternatives presented offer no substantive means of addressing these impacts. The alternatives and actions, as currently written, belie four years of work and the accumulated evidence of environmental harm, and would substitute permit process tinkering for meaningful and measurable change. Publication of a draft EIS with this approach, especially when the public has seen earlier drafts, will further damage the credibility of the agencies involved.

Figure 1. Cerulean Warbler (*Dendroica cerulea*) Summer Distribution Map. The North American Breeding Bird Survey Results and Analysis, Relative Abundance Map 1966 – 2002. USGS 2003.



These maps indicate the number of birds seen on BBS routes, grouped into convenient categories of relative abundance. The maps predict the average number of birds of the species that could be seen in about 2.5 hours of birdwatching along roadsides (by very good birders). They are based on mean counts on BBS routes over the interval 1982 – 1996.

CERULEAN WARBLER (*DENDROICA CERULEA*) MICROHABITAT AND LANDSCAPE-LEVEL HABITAT CHARACTERISTICS IN SOUTHERN WEST VIRGINIA IN RELATION TO MOUNTAINTOP MINING/VALLEY FILLS

Final Project Report

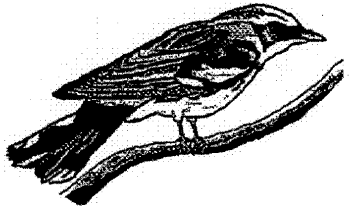
December 2002

Submitted by:

CATHY A. WEAKLAND AND PETRA BOHALL WOOD
West Virginia Cooperative Fish and Wildlife Research Unit
USGS Biological Resources Division
and West Virginia University, Division of Forestry
P.O. Box 6125, Morgantown, WV 26506

Submitted to:

USGS Biological Resources Division
Species-At-Risk Program



Cerulean Warbler (*Dendroica cerulea*) Microhabitat and Landscape-Level Habitat Characteristics in Southern West Virginia in Relation to Mountaintop Mining/Valley Fills

Cathy A. Weakland and Petra Bohall Wood, West Virginia Cooperative Fish and Wildlife Research Unit, USGS, BRD and West Virginia University, Division of Forestry, P. O. Box 6125, Morgantown, WV 26506

Abstract

The Cerulean Warbler (*Dendroica cerulea*) is a species of conservation concern in eastern North America, where declines in its population have been documented over the last several decades. Both habitat fragmentation and increased edge may negatively impact Cerulean Warbler populations. A high proportion of this species' population occurs in forested areas of southern West Virginia, where it may be threatened by loss and degradation of forested habitat from mountaintop mining/valley fills (MTMVF). We examined the impact of forest fragmentation (in particular the effects of fragment size and response to edges) on Cerulean Warbler densities from a landscape perspective using territory mapping techniques and geographic information system (GIS) technology. Specific objectives were: (1) to quantify Cerulean Warbler territory density and indices of reproductive success in forests fragmented by MTMVF mining and in relatively intact blocks of forest, (2) to quantify landscape characteristics affecting Cerulean Warbler territory density, and (3) to quantify territory-level characteristics of Cerulean Warbler habitat. The study area included portions of 4 counties in southwestern West Virginia. Territory density was determined using spot-mapping procedures, and reproductive success was estimated using the proportion of mated males as an index of reproductive performance. We quantified landscape characteristics (cover types and fragmentation metrics) from digitized aerial photographs using Arcview® with the Patch Analyst© extension and measured microhabitat characteristics on spot-mapping plots.

Territory density of Cerulean Warblers was greater in intact (4.6 terr/10 ha) than fragmented forests (0.7 terr/10 ha), although mating success of males was similar in both (60%). Habitat models that included both landscape and microhabitat variables were the best predictors of territory density. The best model indicated that territory density increased with increasing snag density, percent canopy cover >6-12m and >24m, and distance from mine edge. Models for predicting microhabitat use at the territory level were weak, indicating that microhabitat characteristics of territories were similar to habitat available on spot-mapping plots. The species did not appear to avoid internal edges such as natural canopy gaps and open or partially-open canopy roads. Territory placement on ridges was greater than expected and in bottomlands (ravines) and west-facing slopes less than expected based on availability in both intact and fragmented forest. In fragmented forest, 92% of territories occurred only in fragments with ridgetop habitat remaining. Preference for ridges suggests that MTMVF may have a greater impact on Cerulean Warbler populations than other sources of forest fragmentation since ridges are removed in this mining process. Generally, our data indicate that Cerulean Warblers are negatively affected by mountaintop mining from loss of forested habitat, particularly ridgetops, and from degradation of remaining forests (as evidenced by lower territory density in fragmented forests and lower territory density closer to mine edges).

Introduction

The Cerulean Warbler (*Dendroica cerulea*), a species of concern in the eastern United States, occurs at high densities in southern West Virginia. Cerulean Warblers have been declining in many parts of their range (Sauer et al. 2000), and southwestern West Virginia may represent a significant source population for this species in the eastern United States (Rosenberg and Wells 2000). A recent status assessment by the U.S. Fish and Wildlife Service indicates that the population is declining at "precipitous rates" and that the primary threat to the species is loss of habitat (Hamel 2000). The assessment also suggests that successful management will depend upon managing high quality habitat in forested landscapes (Hamel 2000). It is estimated that 47% of the Cerulean Warbler population in North America occurs in the Ohio Hills physiographic area (Rosenberg 2000), which includes part of southern West Virginia. Partners in Flight (PIF) identified the Cerulean Warbler as priority species for conservation in the upland forest community of the Ohio Hills and Northern Cumberland Plateau physiographic areas (Rosenberg 2000, C. Hunter, personal communication), the 2 areas within which our study sites fall. This species also is listed as being at Action level II (in need of immediate management or policy range-wide) by PIF (Rosenberg 2000).

A current potential risk to Cerulean Warbler populations is the coal mining technique of mountaintop mining/valley fill (MTMVF). These extensive surface mines can impact areas on the order of 2000 ha in size, converting a landscape that is predominantly forested to a landscape of predominantly early successional habitats with remnant forest fragments (Wood et al. 2001). It is imperative to understand how these landscape-level changes could impact Cerulean Warblers, a species that inhabits large tracts of mature deciduous forest with large, tall trees (Hamel 2000). The species appears to use edges of small canopy gaps within large tracts; however, the use of openings and edges needs further study. Other high priority research needs include occurrence and density of this species relative to landscape characteristics, especially in relation to forest fragmentation, habitat preferences in relation to vegetation structure, and response of populations to land management activities (Hamel 2000).

Fragmentation and loss of forest habitat from a variety of human-induced disturbances are major issues in wildlife conservation due to negative effects on a number of wildlife species, including Cerulean Warblers. Because West Virginia is predominantly forested, it provides important habitat for forest interior songbird species that require large tracts of unbroken forest. Mountaintop mining/valley fill sets back successional stages, essentially converting large areas of

mature hardwood forest to early successional habitat. Forested valleys located below the target coal seams and beyond the reach of the valley fills often appear vegetatively similar to nearby contiguous tracts of forest, but are partially surrounded by actively mined or reclaimed areas resulting in large amounts of edge habitat. These edges may attract known nest predators, such as American Crows (*Corvus brachyrhynchos*) and Blue Jays (*Cyanocitta cristata*), and a known nest parasite, the Brown-headed Cowbird (*Molothrus ater*), which may negatively affect songbird populations by reducing productivity (reviews by Yahner 1988, Paton 1994).

The current federal status assessment indicates that "habitat destruction, fragmentation, and modification on breeding and nonbreeding areas" are most likely responsible for the decline of this species (Hamel 2000). The major effect of MTMVF on Cerulean Warblers is the loss and fragmentation of forested habitat. Fragmentation may negatively affect forest-dwelling songbirds because of isolation effects, area effects, edge effects, and competitive species interactions (Finch 1991, Faaborg et al. 1995). In a forested landscape, fragmentation results from timber harvests, roads, powerlines, stand diversity, and natural canopy gaps. This is a much finer scale than occurs in agricultural areas, where forests appear as islands in a sea of crops and/or pastureland. Fragmentation in a forested landscape might be viewed as "internal" or soft fragmentation, whereas fragmentation in an agricultural landscape might be viewed as "external" or hard fragmentation (Hunter 1990). Fragmentation in an agricultural landscape is often permanent, but fragmentation in forested landscapes is usually temporary (Faaborg et al. 1995). Faaborg et al. (1995) suggested that the latter type of fragmentation is less severe to forest birds than permanent fragmentation, but nonetheless, "detrimental effects still exist." For example, Duguay et al. (2001) found that the number of Wood Thrush fledglings produced in clearcuts was less than in unharvested forest, but the number produced was still high enough to prevent the clearcuts from being sink habitat. Weakland et al. (2002) found that the abundance of some forest interior species declined after diameter-limit harvesting, but the abundance of most species was not affected when a large diameter-limit (>45cm) was used. There are no published studies documenting the effect of MTMVF on forest-dwelling songbirds as forests are lost and fragmented due to mining activities. Thus, it is unclear whether or not MTMVF acts as an internal or external fragmentation event to songbird species. The severity of the habitat loss/fragmentation will depend on whether MTMVF areas are re-forested or if they are allowed to remain in early stages of succession. Even when natural succession occurs on reclaimed MTMVF sites, it can be very slow due to soil compaction

and lack of a seed bank. Non-timber post-mining land uses such as grazing or development will result in permanent fragmentation of forest habitats.

During 1999 and 2000, we quantified the effects of MTMVF on songbird populations (Wood et al. 2001). Using point count methodology, we found Cerulean Warblers at relatively high abundances in both intact (47 point count stations) and fragmented forest (36 point count stations). They were detected at 62% of intact forest point counts and at 44% of fragmented forest point counts. However, the number of fragmented forests that we were able to sample (8) was relatively low, and we did not sample a large range of different-sized fragments. Additionally, presence of an individual does not imply that it bred there (Van Horne 1983).

In 2001 and 2002, we re-sampled our existing study sites and quantified Cerulean Warbler density using territory mapping techniques. Territory mapping can be a more accurate and precise method of estimating bird abundance (Bibby et al. 1992) and allowed us to make inferences concerning the relationships between bird density and habitat and landscape variables. We also added study sites in additional forest fragments resulting from MTMVF to assess the effects of fragment size and edge type. We measured microhabitat characteristics in the field and landscape characteristics from aerial photographs and related these to Cerulean Warbler territory density. Our specific objectives were: (1) to compare Cerulean Warbler territory density and an index of reproductive success in forests fragmented by MTMVF mining with those in relatively intact blocks of forest in southern West Virginia, (2) to quantify landscape characteristics affecting Cerulean Warbler territory density, and (3) to quantify territory-level characteristics of Cerulean Warbler habitat.

METHODS

Study Sites

Our study sites were located in mature forest surrounding three mountaintop mine/valley fill complexes within three watersheds in Boone, Logan, Kanawha, and Fayette counties, West Virginia (Figs. 1-4). One mine complex (2003 ha) in Kanawha and Fayette counties was in the Ohio Hills physiographic province; the other two (1672 and 1819 ha) were in the Northern Cumberland Plateau. These sites were used in our previous study of the impact of MTMVF on terrestrial wildlife in 1999 and 2000 (Wood et al. 2001).

Intact forest sites were relatively large, unfragmented areas of forest that were undisturbed by mining activities but located near reclaimed MTMVF complexes, either within the same

watershed as the reclaimed site or in an adjacent watershed. Although these sites were relatively contiguous forest, they did have some breaks in canopy cover from streams, roads, powerlines, and natural canopy gaps. Some intact forest sites were located in close proximity to MTMVF areas, but no intact forest site shared more than one edge with an MTMVF area. We defined fragmented forest as a tract of forest located within a MTMVF complex and primarily surrounded by reclaimed mine land. Because these tracts are often long, narrow peninsulas of forest, they generally are surrounded by reclaimed land on at least three sides.

The intact and fragmented forest areas are comprised mostly of mature hardwood species including oaks (*Quercus* spp.), hickories (*Carya* spp.), tuliptree (*Liriodendron tulipifera*), American beech (*Fagus grandifolia*), red maple (*Acer rubrum*), sugar maple (*A. saccharum*), and white ash (*Fraxinus americana*). These stands are second growth forests that appeared to be approximately 60-80 years old. Although forested, these stands may have been periodically disturbed over the last several decades from firewood cutting, single tree harvesting, thinning, and understory forest fires.

Surveys/sampling

In 2001, we established six intact forest plots (two within each watershed) and 19 plots in 15 fragments. Two additional intact plots were added to the study in 2002.

We surveyed Cerulean Warblers using a territory-mapping technique called spot-mapping (Bibby et. al 1992). Plots were placed near the center of 15 forest fragments ranging from 1-290 ha, allowing us to examine territory density relative to fragment size. In 2 larger fragments, two 10 ha plots were established, 1 near the center and 1 adjacent to a reclaimed grassland mine edge to examine response to major edge type (Table 1). In the largest fragment, 3 plots were established, 1 adjacent to edge (10 ha), 1 interior on a mid-slope (7.5 ha), and 1 along a stream (10 ha). In fragments <10 ha in size, the whole fragment was surveyed for Cerulean Warblers; therefore plot size was equal to fragment size (Table 1). All intact forest plots were 10 ha in size. Although intact forest plots were at least 100 m from the mine edge, they still contained internal edges due to the presence of roads, streams, and natural canopy gaps, giving us the opportunity to assess the effects of these edge types on Cerulean Warbler densities.

Each fragmented forest and intact forest plot was surveyed at least 10 times from the first week of May to the first week of July each year (Bibby et al. 1992). Surveys were conducted from one-half hour after sunrise to 1030 hr EST. All surveys were conducted by 3-5 observers experienced in songbird identification and trained in territory-mapping procedures. The maximum number of territories/10 ha on each plot between years was used in statistical analyses.

Assessing Reproductive Success

Information on Cerulean Warbler reproductive success is greatly needed, but it was logistically unfeasible to find enough nests of this canopy-nesting species to have an adequate sample size needed to determine survival rates. Therefore to evaluate reproductive performance, we opportunistically gathered evidence of breeding, such as nest location and nestling food provisioning, and male/female interactions on each plot by observing Cerulean Warbler activity during territory mapping. Although these methods are limited, we believe they provided us with at least some information on the reproductive success of Cerulean Warblers within our study area. Vickery et al (1992) applied a similar method while studying sparrow species in Maine, for which they could find few nests. Researchers studying the Kirtland's Warbler (*D. kirtlandii*) (Probst and Hayes 1987), Ovenbirds (*Seiurus aurocapillus*), and Kentucky Warblers (*Oporornis formosus*) (Gibbs and Faaborg 1990) also used similar methods to estimate pairing success.

Microhabitat Sampling

We quantified microhabitat characteristics within each plot using modified methods from BBIRD (Martin et. al 1997) and James and Shugart (1970). We established two 0.04-ha quadrats per hectare in each territory-mapping plot. Quadrats were systematically distributed approximately every 50 m throughout the plot (Ratti and Garton 1994), except at sites that were used in our previous study in 1999-2000. We used existing microhabitat information from these sites (sampling methods were the same in both studies and habitat conditions had not changed) and only collected additional microhabitat measurements if the sample size was <2 quadrats/ha. One 0.04-ha quadrat was established at the center of each territory. Measurements included tree densities and diameters, density of snags >8 cm dbh (diameter-at-breast height), canopy height, aspect, percent slope, and percent canopy cover and ground cover as measured using an ocular tube (James and Shugart 1970). Snags were defined as standing dead trees >8 cm in diameter with no live foliage present.

We also determined the distance from the center of the territory to the closest edges using aerial photographs, compass, and pacing. Internal edge types included the following: open-canopy road, partially-open canopy road (including skidder trails), development (i.e. houses, buildings, etc.), river or stream, and natural canopy gap. Open-canopy roads were those that were not overtopped by trees and from which open sky was observed. Partially-open canopy roads were overtopped by trees and revealed little open sky. Natural canopy gaps were openings created by snags and/or windfalls. Mine edge was considered an external edge and was measured at the territory-level only when mine was the closest edge type. The mean of quadrat measurements for each variable for each

plot was used in statistical analyses. Microhabitat measurements also were made at Cerulean Warbler nests using the methods described above.

Landscape Analyses

We quantified landscape characteristics by digitizing georeferenced copies of the 1996-97 National Aerial Photography Program (NAPP) photographs for our study areas into 7 land use/land cover categories: mature deciduous forest, mature mixed coniferous/deciduous forest, grassland, barren, shrub/pole, water/wetlands, and developed. Roads, trails, and streams were overlaid on cover maps to examine territory placement relative to these canopy gaps. Fragment size was measured from aerial photographs. Final maps were corrected to reflect changes since 1996. We used these maps to calculate the amount of each cover type within 1 km of the center of each study plot and to calculate fragmentation indices that may predict the density of Cerulean Warblers. Fragmentation indices included contrast-weighted edge density (Appendix 1), core area of mature forest, area of fragment or continuous forest (within 2-km of the plot center), and distance from mine edge. We used a 100-m buffer to calculate core area and edge density. Arcview® (Environmental Systems Research Institute 1996) with the Patch Analyst® extension (McGarigal and Marks 1994, Elkie et al. 1999) was used for all landscape analyses.

Statistical Analyses

Habitat models

To develop habitat models, we followed the recommendations of Burnham and Anderson (1998) who advocate an information-theoretic approach, which is based the principle of parsimony. This principle implies that a model should be as simple as possible with respect to the included variables, the model structure, and the number of parameters. They recommend the use of Kullback-Leibler information and Aikaike's information criterion (AIC) as the basis for modeling rather than null hypothesis testing. With this approach, one selects a set of candidate models prior to examining the empirical data. The *a priori* models are selected based on previous knowledge of the species in question. Variables are dropped or combined before modeling with the actual data. When little is known about the system in question, a large number of candidate models may be examined in an exploratory analysis. As Burnham and Anderson state, this method emphasizes thinking about the set of candidate models, excluding those variables that probably are not relevant to the species, and looking for potentially important variables in the literature. Models are evaluated by comparing relative AIC values among models and by examining Aikaike weights to

determine the probability of each model being selected for the given data relative to all the others (Burnham and Anderson 1998).

Habitat available for Cerulean Warblers was evaluated 3 ways: at the microhabitat level (plot), landscape level, and the territory level. We began model selection at the microhabitat and landscape levels by first examining the frequency distribution of Cerulean Warbler territories, which was found to be a Poisson distribution (Neter et. al 1988). We then modeled the relationship between territories and habitat variables using Poisson regression (Stokes et al. 1995).

Microhabitat variables included in the candidate models were density of large trees (>38 cm dbh) and snags, distance from the closest edge, and canopy cover in 4 height classes (Table 2). We excluded understory stem densities, ground cover, and low canopy cover (<6 m) which likely have little influence on habitat selection by this canopy-dwelling species. Average canopy height also was excluded. Since Ceruleans are known to select the tallest trees as singing perches, we felt that including this variable would bias the results.

At the landscape level, variables were combined or excluded based on known preferences of the species or because they were highly correlated to one another. The area of mature deciduous forest was removed from the analysis because it was highly correlated to core area of mature forest. Cover of shrub/pole, grassland, wetlands/ponds, and barren were combined into one cover class (mine) to help reduce the overall number of variables in the model because the species is not likely to select any of these habitats. Landscape variables included in the candidate models were mine cover, mature mixed conifer/deciduous cover, development cover, as well as 4 fragmentation indices (Table 2).

Because little is known about Cerulean Warbler habitat use in West Virginia and there is no information regarding landscape effects from mountaintop removal on this species, we proceeded with an exploratory analysis and examined a large number of candidate models (n=488) using a top-down approach by starting with the full model and deleting variables (Burnham and Anderson 1998). The full model included all 14 microhabitat and landscape variables (Table 2). We then calculated AIC values with a correction factor (AIC_C), because our sample size to parameter ratio was <40 (Burnham and Anderson 1998). Models examined included all 14 univariate models, microhabitat-only models, landscape-only models, and combined models with both microhabitat and landscape variables.

To examine territory-level habitat use, we developed logistic regression models from use/non-use data with the same variables used in microhabitat analyses. Use data were measurements taken

at the center of territories (primarily singing male core areas or nest sites). Non-use data were measurements taken on subplots that fell outside the areas used by singing males, as determined from spot-maps (Figs. 5-14). Two sets of logistic regression models were developed. The first used data from all vegetation subplots in all plots. The second used data only from plots where Cerulean Warblers were found, to exclude plots where Ceruleans may not have been detected because of the landscape. We selected the 5 best models from a set of 20 candidate logistic models initially developed from knowledge of Cerulean Warbler habitat preferences from the literature and from consulting with others who study this species. AIC_c values were used to select the 5 best models.

Comparisons between treatments

We used chi-square analysis (Zar 1999) to examine the difference between the used and available habitat in fragmented and intact forest. We then calculated Bonferroni 95% confidence intervals (Neu et al. 1974) for the proportion of occurrence in each habitat category and compared them to the available habitat.

Cerulean Warbler density relative to slope, aspect, and edges

Cerulean Warbler territory placement relative to slope position, aspect, and edges was examined using chi-square analysis (Zar 1999) and Bonferroni 95% confidence intervals (Neu et al. 1974). The occurrence of Cerulean Warbler territories in each category was determined by using the position of the center of the territory. Ninety-five percent confidence intervals were calculated to examine the difference between the proportion of occurrence and the proportion of available habitat in each category.

We measured the area of each spot-mapping plot that was ridge, mid-slope, and low-slope to determine the proportion available for each slope position. The expected number of territories in each category was determined by multiplying the total number of territories by the proportion of available habitat in each category. Ridge was considered the area of the plot at the peak with little or no slope. Low slope was the area of the plot that was at the foot of the slope <25 m from a stream or creek bottom. Mid slope was all the area between the low slope and the ridge. We determined the area of each plot that faced east (0-180°), and west (>180-359°), as well as the area in ridge top and bottomland that have no slope and thus no aspect. Aspects could not be broken down further because of small sample sizes.

We used chi-square (Zar 1999) to compare use and availability of edge types. Edge type use was the closest edge to each territory. We determined the availability of edge types using data from the non-use vegetation quadrats. The proportion of quadrats in each closest edge category was

considered available edge habitat. The expected total number of territories was the product of the total number of observed territories and the proportion of edge types available in each edge category. We compared the proportion of edge types available between fragmented and intact forests using a paired t-test (Neter et al. 1988).

Mating success

We attempted to observe mating and reproductive behavior on all plots in 2001, and on a sub-sample of plots in 2002. Initially we planned to rank male reproductive success using the reproductive index score of Vickery et al. (1992). However, because these birds stay relatively high in the canopy, females are notoriously secretive, and few active nests were found, the reproductive index score was not effective for use with our data. However, we present findings for all males that were followed and observed for at least 60 min. Males were considered mated if a female was observed on the territory, the male was observed feeding fledglings, or the male sang the "whisper" song, which is only sung by mated males (J. Barg, pers. comm.). Males were considered unmated if they never sang the whisper song, females were never observed on the territory, fledglings were not observed, and the male had a high rate of singing.

Results

Treatment Comparisons

We mapped 14 territories on 175.3 ha of fragmented forest in 2001 and 10 in 2002 (Figs. 5-11) for an average territory density of 0.7 territories/10 ha. In intact forest, we mapped 24 territories on 60 ha in 2001 and 40 on 80 ha in 2002 (Figs. 12-14) yielding a mean territory density of 4.6 territories/10 ha. The proportion of observed territories was less in fragmented forest and greater in intact forest than the proportion expected based on the habitat available in each treatment (Table 3, Fig. 15). Seventy-three percent of all territories were in intact forest, although only 28.5% of the total area surveyed was intact forest. Territory density was over 6 times higher in intact than fragmented forest.

Microhabitat and Landscape Models

The 5 best habitat models were combined models that included both microhabitat and landscape variables (Table 4). All 5 models included 3 microhabitat variables (percent canopy cover >6-12 m (Fig. 16), percent canopy cover >24 m (Fig. 17), and snag density (Fig. 18)) and the landscape variable distance from mine edge (Fig. 19) as predictor variables. All variables were positively related to Cerulean Warbler territory density. The best model had an Aikaike weight of

0.58 relative to the other 487 models, indicating that it had a 58% probability of being chosen given the data. The next best model had a much lower weight, of 0.09. Although distance from mine edge appeared to have a weak relationship with density when all distances were examined, a closer inspection of the data showed a strong relationship up to 500m from the mine (Fig. 19).

The best microhabitat model contained snag density, percent canopy cover >6-12 m, and percent canopy cover >24 m as predictor variables, but had a low weight (w <0.01) compared to the combined models. The best landscape model contained area of mature mixed conifer/deciduous forest and core area of mature forest (Fig. 20) as predictors but also had a very low weight (w <0.01). Area of fragment/continuous forest also was one of the better predictors (Fig. 21).

Territory-level Models

To identify microhabitat characteristics that Cerulean Warblers may use for placement of their territories within a plot, we developed logistic regression models comparing territory and available sites. The 5 best models developed from all plots and only from plots with Cerulean Warbler territories all had low Aikaike weights (Table 5) indicating that these variables are poor predictors of Cerulean Warbler territory placement. Means and standard errors for these variables indicate only a small difference between non-use subplots and territory subplots (Appendix 2), which may not be biologically significant.

Density relative to aspect, slope position, and edges

For all plots combined, ridge habitat use by Cerulean Warblers was greater than availability whereas mid slope habitat use was less than availability (Table 3, Fig. 22). The proportion of occurrence on low slopes did not differ from what was available. This trend was the same in both fragmented and intact forests (Table 3). Territory density was over twice as high on ridges than on low and mid slopes (Table 3).

The proportion of Cerulean Warbler occurrence was less than the proportion available on west-facing slopes and bottomlands and greater than what was available on ridges; it did not differ from what was available on east-facing slopes (Table 3). Again, this trend was similar between intact and fragmented forests. Density was twice as high on ridges than east-facing slopes and 4 times greater on ridges than west-facing slopes and bottomlands (Table 3).

When territories in fragmented and intact forest were combined, territory placement in relation to closest edge type was different from expected (?2=36.82, df=4, P<0.001) based on edges available on the territory-mapping plots (Table 6). Territories were adjacent to streams less than expected and adjacent to partially-open canopy roads greater than expected (Table 6). The

distribution of closest edge types did not differ between fragmented and intact forest (t<0.01, df=4, P=1.00) (Fig. 23), so a similar pattern of selection was observed in each treatment. In both treatments, territories were adjacent to streams less than expected and adjacent to partially-open and open canopy roads greater than or equal to expected.

Most territories (63%) crossed either an open or partially-open canopy road/trail (Figs. 5-14). The mean distance to the closest internal edge was 30.3 m from a territory center and 34.4 m from a non-use subplot (Table 7). Both the logistic and the Poisson regression models showed a negative relationship between Cerulean Warbler territory presence/density and distance from closest edge indicating that they preferred areas closer to internal edges. Two territories in very small fragments were not included in analyses of closest internal edge because their closest edge was an external (mine) edge.

Mating Success

We were able to follow 10 males in fragmented forest (on 6 plots) and 30 males in intact forest (on 6 plots) in the 2 years of the study to determine mate status. Of the 10 males that were followed in fragmented forest, 60% were confirmed mated based on the presence of a female on the territory or observations of the male feeding fledglings, whereas 40% were assumed unmated, based on singing behavior and no observed female on the territory. Similarly, in intact forest, 60% of the 30 males observed were assumed to be mated based on observations of females with the male (30%) or because of "whisper singing" behavior (30%). Forty percent were assumed to be unmated. Males were observed feeding fledglings on 2 fragmented forest plots and 1 intact forest plot. One of these males was in one of the smaller fragments (9.4 ha), that had a considerable amount of edge habitat.

Four nests were found, 1 in 2001 and 3 in 2002. Three nests were in intact forest and 1 was in fragmented forest. One nest was successful, 2 were unsuccessful (possibly due to abandonment after severe weather), and 1 fate was unknown. Habitat characteristics around nest sites are summarized in Table 8. Nest tree species were northern red oak (*Quercus rubra*), tuliptree (*Liriodendron tulipifera*), american basswood (*Tilia americana*), and bitternut hickory (*Carya cordiformes*).

DISCUSSION

Our data indicate that loss and fragmentation of forests by MTMVF mining in southern West Virginia is negatively affecting populations of Cerulean Warblers. Cerulean Warbler territory

density was lower in forests fragmented by mining than in intact forests. Both microhabitat and landscape components are important factors influencing territory densities.

Consistent predictors of territory density at the microhabitat level were percent canopy cover >6-12 m, >24 m, and snag density. Previous research indicates that Cerulean Warblers prefer a canopy divided into distinct vertical layers in flood plain forests of North Carolina, where tall, old-growth trees dominate the canopy (Lynch 1981). This bird typically nests at heights between 4.6-18.3 m (summarized in Hamel 2000), and thus it is not surprising that Cerulean Warbler territory density was higher in stands with a high amount of canopy cover from >6-12 m. Preference for areas with canopy cover >24 m is in agreement with studies that found this species in areas with large, tall trees and a dense upper canopy (Lynch 1981, Robbins et al. 1992, Oliarnyk 1996). Additionally, Hamel (2000) suggests that the vertical distribution of foliage may be more important than individual values of canopy cover at different heights. Thus, it is not surprising that canopy covers at 2 height classes were identified as predictors of Cerulean Warbler density.

The preference for a high density of snags is likely related to the apparent preference for areas with gaps in the canopy as noted by other researchers (Oliarnyk 1996, Oliarnyk and Robertson 1996). Snags likely contribute to the complex canopy structure apparently preferred by Ceruleans by opening the canopy allowing development of understory trees and by increasing heterogeneity of the canopy. Further, our data indicate that Cerulean Warblers in our study area are not avoiding internal edges. We often observed both males and females in or near canopy gaps, such as open and partially-open trails and roads and natural tree fall gaps. Two of the 4 nests we observed were within 10 m of a canopy gap (a natural tree fall gap and a partially-open canopy road).

Landscape factors also were significant predictors of Cerulean Warbler territory density. Distance from mine was positively related to density, particularly within 500 m (Fig. 19), indicating that Ceruleans are avoiding the large-scale edges produced by the mines. Cerulean density also was positively associated with core area of mature forest (Fig. 20) and area of fragment (Fig. 21), indicating a preference for large-blocks of mature forest similar to findings of Robbins et al. (1989) and Robbins et al. (1992). Density was negatively associated with area of mixed conifer/deciduous forest, which is primarily composed of Eastern hemlock. (*Tsuga canadensis*) on our study sites. This result also is not surprising given that this species is known to be restricted to mature deciduous forests (Hamel 2000).

Results at the territory level were inconclusive. Our data indicate that there was little difference in microhabitat between territories and non-use areas. It is possible that Cerulean

Warbler habitat is not limited within the mixed mesophytic forests of southwestern West Virginia and that suitable areas are not being occupied. Males may settle where others are already present and form loose "colonies" (Hamel 2000). If this is true, then Cerulean Warblers would exhibit a clumped distribution across the landscape, and it would appear that suitable habitat is not being used. Our data suggest that Cerulean Warblers may follow this pattern (Fig. 5-14). Single males occurred on only 3 plots where Cerulean Warblers were present.

Other studies identified large-diameter trees as being important for Cerulean Warblers (Robbins et al. 1992, Oliarnyk 1996, Hamel et al. 1994). We did not find tree diameter to be an important predictor of Cerulean Warbler occurrence. We often observed clusters of territories on ridges with "small" trees relative to tree size in other areas of the forest. Our data suggest that tree size may be less important for Cerulean Warblers in West Virginia than in other areas. Hamel (2000) suggested that tree diameters and heights may not accurately reflect Cerulean Warbler habitat and cannot be extrapolated among areas because these metrics are a function of topography, soils, and the site on which the forest is growing.

Both slope and aspect influenced Cerulean Warbler territory placement in our study. Territories were found more than expected on ridges. Brooks (1908) was the first to note the tendency of Cerulean Warblers to occupy breeding territories at or near the top of hills in West Virginia. Researchers in Indiana also have observed a similar trend in territory distribution (K. Islam, personal communication). Researchers with the Cerulean Warbler Atlas Project (CEWAP) in West Virginia also found Ceruleans to be more prevalent on dry slopes and ridges; approximately 65% of their sightings were in these areas (Rosenberg et. al 2000). Ridgetops may have structural features that attract Cerulean Warblers. Our data indicate that plots with ridgetops may have higher densities of snags (t=-2.57, df=21, P=0.01) than plots without ridges. Thus canopy gaps, which may be important for Ceruleans, likely are more prevalent on plots with ridges. However, neither canopy cover >6-12 m or >24 m differed between plots with ridges and those without ridges. More research is needed to determine the factors on ridges that attract Cerulean Warblers.

The preference for ridges could result in significant impacts on Cerulean Warbler populations in the MTMVF region. Because ridges are removed with this type of mining, Cerulean Warbler preferred habitat is lost. This could be one factor contributing to lower territory densities in forests fragmented by MTMVF mining. The majority of Cerulean Warbler territories in fragmented forest plots were on those that had ridges remaining. Of fragments without ridges, only 2 out of 7 had Cerulean Warbler territories (mean=0.17/10 ha), compared to 6 out of 8 with ridges

that had Cerulean Warbler territories (mean=0.95/10 ha). On intact plots, those with ridges had a mean territory density of 6.0/10 ha compared to 0.80/10 ha on those without ridges. Analysis of point counts from our earlier study of MTMVF mining also indicates that Cerulean Warblers were found greater than expected at points on ridges (Weakland and Wood, unpub. data). Thus, continued removal of ridges in southern West Virginia by MTMVF mining could have serious negative effects on Cerulean Warbler populations.

The preference for placing territories on ridges also has implications for using BBS data for monitoring populations. Most BBS routes in this part of West Virginia are run primarily along valleys, where territory density is likely lowest; therefore density or abundance estimates based on BBS data are likely underestimates. However, we have found that Cerulean Warbler abundance at off-road point counts in West Virginia generally follows a similar pattern to BBS trends, although abundance estimates cannot be compared directly (Weakland et al. *in review*).

One limitation of our study was lack of information on breeding success. Although we anticipated difficulty in finding nests, we had expected the reproductive index of Vickery et. al (1992) to be more effective. Although we were not able to follow all of the males that we mapped on the plots, our data do provide some insight into reproductive performance. The proportion of mated males is likely to be an underestimate rather than an overestimate, since males we classified as unmated could have had a female that we did not detect. However, based on evidence of nesting and sightings of fledglings, it appears that Cerulean Warblers are breeding in both intact and fragmented forests in southern West Virginia and that the proportion of mated males (60%) is similar.

Researchers from Ontario who mistnetted males on our plots captured 5 males in fragmented forests and 14 in intact forest. In fragmented forests, 40% were second-year (SY; i.e. 1-year-old) males, and in intact forests, 21% were SY birds (K. Girvan, unpub. data). Although the data are limited, they suggest that Cerulean Warblers are breeding successfully in this area, but SY birds may be displaced into fragmented forests, which may be less suitable habitat.

Summary

In conclusion, both landscape and microhabitat factors are influencing Cerulean Warbler density in southern West Virginia. Cerulean Warblers appear to prefer ridgetops within large blocks of mature forest with a high percent canopy cover from >6-12m and >24m, and a high density of snags. They do not appear to be avoiding internal (soft) edges such as roads and trails,

but do appear to be avoiding the external (hard) edges created by mining. Generally, MTMVF mining reduces the amount of forested habitat available for use by Cerulean Warblers and is lowering the suitability of the remaining forest habitat as evidenced by lower territory density in fragmented forest and near mine edges. Because of the large size of most MTMVF areas, it is possible that they may have negative effects on populations of the Cerulean Warbler that require large blocks of unfragmented forest for breeding. Loss of ridgetop habitat appears to be particularly important in reducing territory density. The 3 MTMVF complexes on our study areas totaled 7,244 ha with approximately 76% in grassland habitat, 14% shrub/pole, and 10% fragmented forest (Wood et al. 2001). If we assume that this area was approximately 80% intact forest before mining, take into account that some fragmented forest remained after mining, and use a mean territory density of 4.6 territories/10ha in intact forest and 0.7 territories/10ha in fragmented forest, then potentially 2,625 Cerulean Warbler males could have been displaced by these 3 mines. However, at this point we do not know if nesting success differs between intact and fragmented forests or among different slope positions. So, although territory density may be higher in intact forest and on ridgetops, fledging success may not necessarily be higher than other areas.

Acknowledgements

Funding for this study was provided through the Species-at-Risk program of the USGS, Biological Resources Division. We thank staff of Arch Coal and Cannelton mining companies for logistical support and for access to their properties. Ark Land Company provided field housing. We also thank the field technicians who assisted with data collection: S. Bosworth, A. Carroll, J. Hartman, M. Jones, S. Marchetti, J. Simmons. R. Dettmers, T. Muir, K. Rosenberg, and C. Tibbott provided helpful comments on an earlier draft of this manuscript. The West Virginia Cooperative Fish and Wildlife Research Unit (BRD/USGS) provided field vehicles, access to computers, and logistical and administrative support. WVU Division of Forestry also provided logistical and administrative support.

Literature Cited

Bibby, C. J., N. D. Burgess, and D. A. Hill. 1992. Bird census techniques. Academic Press Inc., San Diego, Ca.

Brooks, E. A. 1908. Notes from West Virginia. Auk 25:235-238.

Burnham and Anderson 1998. Model selection and inference: a practical information-thoeretic approach. Springer, New York, N. Y.

Duguay, J. P., P.B. Wood, and J. V. Nichols. 2001. Songbird abundance and avian nest survival rates in forests fragmented by different silvicultural treatments. Conservation Biology 15: 1405-1415.

Elkie, P. C., Rempel, R. S., and A. P. Carr. 1999. Patch Analyst© User's Manual. Ontario Ministry of Natural Resources, Northwest Science and Technology, Thunder Bay, Ontario, Canada.

Environmental Systems Research Institute. 1996. Using ArcView® GIS. Environmental Systems Research Institute, Redlands, Ca.

Faaborg, J., M. Brittingham, T. Donovan, and J. Blake. 1995. Habitat fragmentation in the temperate zone. Pages 357-380 *in* Martin, T. E. and D. M. Finch, Eds. Ecology and Management of Neotropical Migratory Birds. Oxford University Press, Oxford and New York.

Finch, D.M. 1991. Population ecology, habitat requirements, and conservation of neotropical migratory birds. U.S. Forest Service General Technical Report RM-205.

Gibbs, J. P. and J. Faaborg. 1990. Estimating the viability of Ovenbird and Kentucky Warbler populations in forest fragments. Conservation Biology 4:193-196.

Hamel, P. B., W. P. Smith, R. J. Cooper, and C. A. Woodson. 1994. Empirical prediction of habitat variables of Cerulean Warblers in bottomland hardwood forests. ABSTRACT. Paper presented at First North American Ornithological Conference, Missoula, Mont.

Hamel, P. B. 2000. Cerulean Warbler status assessment. U. S. Fish and Wildlife Service. http://www.fws.gov/r3pao/eco_serv/endangrd/birds/cerwasa.pdf.

Hunter, M. L., Jr. 1990. Wildlife, forests, and forestry: principles of managing forests for biological diversity. Prentice-Hall, Englewood Cliffs, N. J.

James, F. C. and H. H. Shugart. 1970. A quantitative method of habitat description. Audubon Field Notes 24:727-737.

Lynch, J. M. 1981. Status of the Cerulean Warbler in the Roanoke River basin of North Carolina. Chat 45:29-35.

McGarigal, K., and B. J. Marks. 1995. FRAGSTATS: spatial pattern analysis program for quantifying landscape structure. U. S. Forest Service General Technical Report PNW –351.

Martin, T.E., C. Paine, C.J. Conway, W. M. Hockachka, P. Allen, and W. Jenkins. 1997. BBIRD Field Protocol. U.S.G.S., Biological Resources Division, Montana Cooperative Fish and Wildlife Research Unit, Missoula, Mont.

Neter, J., W. Wasserman, and G. A. Whitmore. 1988. Applied statistics. Allyn and Bacon, Inc., Boston, Mass.

Neu, C. W., C. R. Byers, and I. M. Peek. 1974. A technique for analysis of utilization-availability data. Journal of Wildlife Management 38:541-545.

Oliarnyk, C. J. 1996. Habitat selection and reproductive success of Cerulean Warblers in southeastern Ontario. M. S. Thesis, Queen's University, Kingston, Ontario, Canada.

Oliarnyk, C. J. and R. J. Robertson. 1996. Breeding behavior and reproductive success of Cerulean Warblers in southeastern Ontario. Wilson Bulletin 108:673-684.

Paton, W. 1994. The effect of edge on avian nest success: how strong is the evidence? Conservation Biology 8:17-26.

Probst, J. R. and J. P. Hayes. 1987. Pairing success of Kirtland's Warblers in marginal vs. suitable habitat. Auk 104:234-241.

Ratti, J. T. and E. O. Garton. 1996. Research and experimental design. Pages 1-23 *in* Boohout, T. A., Ed. Research and management techniques for wildlife and habitats. The Wildlife Society, Bethesda, Md.

Robbins, C. S., D. K. Dawson, and B. A. Dowell. 1989. Habitat area requirements of breeding forest birds of the Middle Atlantic states. Wildlife Monographs 103.

Robbins, C. S., J. W. Fitzpatrick, and P. B. Hamel. 1992. A warbler in trouble: *Dendroica cerulea*. Pages 549-562 *in* Hagan, J. M. III and D. W. Johnston, Eds. Ecology and conservation of neotropical migrant landbirds. Smithsonian Institution Press, Washington, D. C.

Rosenberg, K. V. 2000. Partners in Flight landbird conservation plan: physiographic area 22: Ohio Hills. unpublished draft.

Rosenberg, K. V., S. E. Barker, and R. W. Rohrbaugh. 2000. An atlas of Cerulean Warbler populations. Final report to the U.S. Fish and Wildlife Service., December 2000.

Rosenberg, K. V., and J. V. Wells. 2000. Global perspectives on neotropical migrant conservation in the Northeast: long-term responsibility vs. immediate concern. *In* Bonney, R., D. N. Pashley, R. J. Cooper, and L. Niles, Eds. Strategies for bird conservation: the Partners in Flight planning process. Proceedings of the 3rd Partners in Flight Workshop, October 1995,

Cape May, N.J. Proceedings RMRS-P-16. Department of Agriculture, U.S.D.A. Forest Service, Rocky Mountain Research Station, Ogden, Utah.

Sauer, J. R., J. E. Hines, I. Thomas, J. Fallon, and G. Gough. 2000. The North American Breeding Bird Survey, Results and Analysis 1966 - 1999. Version 98.1, USGS Patuxent Wildlife Research Center, Laurel, Md.. http://www.mbr-pwrc.usgs.gov/bbs/bbs.html

Stokes, M. E., C. S. Davis, and G. G. Koch. 1995. Categorical data analysis using the SAS System. SAS Insititute, Inc. Cary, N. C.

U. S. Environmental Protection Agency. 2001. Mountaintop removal mining/valley fill environmental impact statement (preliminary draft). U.S. E.P.A. Region 3, Philadelphia, Pa.

Van Horne, B. 1983. Density as a misleading indicator of habitat quality. Journal of Wildlife Management 47:893-901.

Vickery, P. D., M. L. Hunter, and J. V. Wells. 1992. Use of a new reproductive index to evaluate relationships between habitat quality and breeding success. Auk 109:697-705.

Weakland, C. A., P. B. Wood, and W. M. Ford. 2002. Responses of songbirds to diameter-limit cutting in the central Appalachians of West Virginia, USA. Forest Ecology and Management 155:115-129.

Weakland, C. A., P. B. Wood, G. E. Williams, J. P. Duguay, T. DeMeo, and J. Nichols. *in review*. Cerulean Warbler habitat characteristics in West Virginia.

Wood, P. B., C. A. Weakland, and J. W. Edwards. 2001. Mountaintop removal mining/valley fill environmental impact statement technical study: terrestrial vertebrate (breeding songbird, raptor, small mammal, herpetofaunal) populations of forested and reclaimed sites. Final project report. 15 Jan. 2001

Yahner, R. H. 1988. Changes in wildlife communities near edges. Conservation Biology 2:333-339.

Zar, J. H. 1999. Biostatistical analysis, fourth edition. Prentice Hall, Upper Saddle River, N. J.

Table 1. Mine sites, treatments, study plots, and size of plots used to map Cerulean Warbler territory densities in southern West Virginia in 2001 and 2002.

Treatment	Mine	Site	# of Plots	Plot sizes (ha)	Forest Size (ha)[a]
Fragmented	Cannelton	Center A	1	8.6	8.6
		Center B	1	9.4	9.4
		Center C	2	10.0	36.0
		Jim Hollow/Hughes Fork	3	7.5, 10.0, 10.0	290.5
	Daltex	Hurricane	1	10.0	48.5
		Beech Creek	1	10.0	15.9
		Jenny	2	10.0	20.5
		Monclo	1	19.7	19.7
		Warehouse #1	1	1.0	1.0
		Warehouse #2	1	2.8	2.8
	Hobet	Lavender Fork	2	10.0,10.0	153.8
		Big Horse Creek	2	10.0,10.0	113.6
		Stanley Fork East	1	11.6	11.6
		Stanley Fork North	1	9.7	9.7
		Stanley Fork West	1	5.0	23.9
		Total	**21**	**175.3**	
Intact	Cannelton	A	1	10.0	1079
		B	1	10.0	752
		C	1	10.0	926
	Daltex	Pigeonroost A	1	10.0	1177
		Pigeonroost B	1	10.0	1211
		Oldhouse Branch	1	10.0	828
	Hobet	Ballard Fork	1	10.0	789
		Spring Branch	1	10.0	930
		Total	**8**	**80.0**	

[a] Forest size for fragments is the actual size of the fragment and for intact forest it is area of continuous forest within 2-km of the plot center.

Table 2. Microhabitat and landscape variables used to model the territory density of Cerulean Warblers in southern West Virginia.

Variables	Code
Microhabitat	
Percent Canopy Cover:	
>6-12 m	CC6-12m
>12-18 m	CC12-18m
>18-24 m	CC18-24m
>24 m	CC24m
Density of trees >38 cm dbh	Trees38cm
Density of snags >8 cm dbh	Snags
Distance to closest edge	DstEdge
Landscape	
Area of:	
Reclaimed mine	Mine
Mature mixed conifer/deciduous	MatMix
Development	Devel
Contrast-weighted edge density	CWED
Core area of mature forest	CoreArea
Area of fragment/continuous forest	ForArea
Distance to mine	DstMine

Table 3. Occurrence and density of Cerulean Warbler territories in fragmented and intact forests, at different slope positions, and aspects in southwestern West Virginia.

Test	Total ha	Prop. of total ha (p_{ia})	No. CERW Observed	No. CERW Expected	Prop. of observed in each area (p_i)	95% Confidence Interval for p_i[a] Lower	Upper	χ^2	df	*P*-value	Territorie /10ha
Treatments											
Fragmented	350.6	0.715	24	63	0.273	0.180	0.366	84.98	1	<0.01	0.7
Intact	140	0.285	64	25	0.727	0.634	0.820				4.6
Slope Position											
All Plots											
Low	32.2	0.066	5	6	0.055	-0.002	0.112	37.33	2	<0.001	1.6
Mid	344.4	0.702	39	62	0.440	0.315	0.564				1.1
Ridge	114	0.232	44	20	0.505	0.380	0.631				3.9
Fragmented Forest											
Low	19.2	0.055	1	1	0.040	-0.009	0.089	5.64	2	<0.10	0.5
Mid	252.4	0.720	12	17	0.480	0.355	0.605				0.5
Ridge	79	0.225	11	6	0.440	0.316	0.564				1.4
Intact Forest											
Low	13	0.093	4	6	0.076	0.009	0.142	23.32	2	P<0.001	3.8
Mid	92	0.657	26	58	0.394	0.272	0.516				2.8
Ridge	35	0.250	34	22	0.500	0.375	0.625				9.4
Aspect											
All Plots											
East	198.8	0.405	37	36	0.407	0.278	0.535	48.45	3	P<0.001	1.9
West	145.6	0.297	5	26	0.055	-0.005	0.115				0.3
Ridge	114	0.232	45	20	0.484	0.352	0.614				3.9
Bottom	32.2	0.066	1	6	0.022	-0.016	0.060				0.6

Fragmented Forest											
East	136.8	0.390	12	9	0.480	0.349	0.611	12.29	3	<0.01	0.9
West	115.6	0.330	1	8	0.040	-0.011	0.091				0.1
Ridge	79	0.225	11	6	0.440	0.310	0.570				1.4
Bottom	19.2	0.055	0	1	0.000	0.000	0.000				0.0
Intact Forest											
East	62	0.443	25	28	0.379	0.252	0.506	28.19	3	P<0.001	4.0
West	30	0.214	4	14	0.061	-0.002	0.123				1.3
Ridge	35	0.250	34	16	0.500	0.369	0.631				9.4
Bottom	13	0.093	1	6	0.030	-0.015	0.075				1.5

[a] p_i represents the theoretical proportion of occurrence and is compared to corresponding p_{ii} to determine if the hypothesis of proportional use is accepted or rejected (Neu et al. 1974).

Table 4. Independent variables for the 5 best combined, microhabitat, and landscape Poisson regression models used to predict Cerulean Warbler territory density in southern West Virginia, with their AIC_C values, ? AIC_C values, Aikaike weights (w), and rank (out of 488 models). The '+' and '-' signs before each variable indicate the direction of the relationship between the variable and territory density.

Models	AIC_C	?	w	Rank
Combined				
+CC6-12m, +CC24m, +Snags, +DstMine	-38.46	0.00	0.58	1
+CC6-12m, +CC24m, +Snags, +DstMine, -MatMix	-34.64	3.82	0.09	2
+CC6-12m, +CC24m, +Snags, +DstMine, +CoreArea	-34.34	4.12	0.07	3
+CC6-12m, +CC24m, +Snags, +DstMine, +FragArea	-32.89	5.56	0.04	4
+CC6-12m, +CC24m, +Snags, +DstMine, +Devel, -MatMix	-32.75	5.71	0.03	5
Microhabitat				
+CC6-12m, +CC24m, +Snags	-26.31	12.14	<0.01	36
+CC6-12m, +CC24m, +Snags, -DstEdge	-25.34	13.12	<0.01	41
+CC6-12m, +CC24m, +Snags, +Trees38cm	-24.94	13.52	<0.01	46
+CC6-12m, +CC24m, +Snags, +Trees38cm, -DstEdge	-24.16	14.30	<0.01	52
+CC6-12m, +CC24m, +Snags, -CC12-18, +Trees38cm	-24.13	14.33	<0.01	53
Landscape				
-MatMix, +CoreArea	-22.62	15.84	<0.01	59
-MatMix, +CoreArea, +DstMine	-21.75	16.71	<0.01	60
-MatMix, +CoreArea, -Mine	-21.64	16.81	<0.01	62
-MatMix, +CoreArea, -Mine, +Devel	-19.96	18.49	<0.01	80
-MatMix, +FragArea	-19.75	18.71	<0.01	82

Table 5. The 5 best microhabitat logistic regression models used to predict Cerulean Warbler presence in southern West Virginia, with their AIC_C values, ? AIC_C values, and Aikaike weights (w). The '+' and '-' signs before each variable indicate the direction of the relationship between the variable and territory density.

Models	AIC_C	?	w
All plots			
+CC18-24m	467.18	0.00	0.15
+Snags	467.75	0.57	0.11
+CC18-24m, +Snags	467.81	0.63	0.11
-DstEdge	468.35	1.17	0.08
+CC24m	468.48	1.30	0.08
Only plots with Cerulean Warblers			
+CC18-24m	413.99	0.00	0.13
-DstEdge	414.00	0.01	0.13
+Snags	414.09	0.10	0.12
+CC12-18m	414.19	0.19	0.12
+Trees38cm	414.84	0.85	0.08

Table 6. Occurrence of Cerulean Warblers (CERW) adjacent to different closest internal edge types in southwestern West Virginia.

Test/Edge types	Availability: Number quadrats	Availability: Proportion (p_{io})	CERW Expected	CERW Observed	Prop. of Observed (p_i)	95% Confidence Interval for p_i[a]: Lower	Upper		$?^2$	df	P-value
All Plots											
Natural gap	33	0.084	7	10	0.120	0.029	0.212	<[b]	36.82	4	<0.001
Stream	138	0.352	29	5	0.060	-0.007	0.127	<			
Partially open road	125	0.319	26	40	0.482	0.341	0.623	>			
Open road	79	0.202	17	27	0.325	0.193	0.457	=			
>2 Types	17	0.043	4	1	0.012	-0.019	0.043	=			
Fragmented forest											
Natural gap	13	0.052	1	1	0.048	-0.072	0.167	=	18.95	4	<0.001
Stream	98	0.390	8	1	0.048	-0.072	0.167	<			
Partially open road	79	0.315	7	16	0.762	0.523	1.000	>			
Open road	49	0.195	4	3	0.143	-0.053	0.339	=			
>2 Types	12	0.048	1	0	0.000	0.000	0.000	<			
Intact forest											
Natural gap	20	0.142	9	9	0.145	0.030	0.260	=	21.50	4	<0.001
Stream	40	0.284	18	4	0.065	-0.016	0.145	<			
Partially open road	46	0.326	20	24	0.387	0.228	0.546	=			
Open road	30	0.213	13	24	0.387	0.228	0.546	>			
>2 Types	5	0.035	2	1	0.016	-0.025	0.057	=			

[a] p_i represents the theoretical proportion of occurrence and is compared to corresponding p_{io} to determine if the hypothesis of proportional use is accepted or rejected (Neu et al. 1974).

[b] Symbols indicate use equals availability (=), use less than availability so avoids (<), and use greater than availability so prefers (>).

Table 7. Mean distance (m) of Cerulean Warbler territory centers (n=83) and non-use subplot centers (n=392) from the closest internal edge in fragmented forests, intact forests, and combined forests in southern West Virginia.

	Fragmented Forest				Intact Forest				Combined			
	Non-use		Territory		Non-use		Territory		Non-use		Territory	
Edge Types	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean
Natural Gap	13	27.3	1	50.0	20	18.5	9	14.3	33	22.0	10	17.9
Stream	98	32.0	1	15.0	40	28.5	4	27.5	138	31.0	5	25.0
Partially-open canopy road	79	20.1	16	12.5	46	22.6	24	20.0	125	21.0	40	17.0.
Open-canopy road	49	77.1	3	68.3	30	42.2	24	54.4	79	63.8	27	55.9
More than one type	12	39.2	0	--	5	68.0	1	20.0	17	47.6	1	20.0
Any edge	251	37.1	21	22.4	141	29.5	62	33.0	392	34.4	83	30.3

Table 8. Means and standard errors (SE) of microhabitat variables surrounding nests of Cerulean Warblers (n=3) in southern West Virginia.

Variables	Mean	SE	Range
Aspect Code	0.9	0.5	0.5-1.8
Slope (%)	47.3	1.9	45-51
Distance to closest edge (m)	20.0	10.4	5-40
Nest Height (m)	15.8	3.3	9-20
Stem Density (no./ha)			
<2.5 cm	6916.7	2387.4	2625-10875
>2.5-8 cm	541.7	150.2	250-750
>8-23 cm	408.3	93.9	250-575
>23-38 cm	141.7	65.1	25-250
>38 cm	116.7	104.4	0-325
Snags >8 cm	241.7	41.7	200-325
Canopy Cover (%)			
>0.5-3 m	13.3	7.3	0-25
>3-6 m	25.0	11.5	5-45
>6-12 m	31.7	16.4	0-55
>12-18 m	36.7	18.6	0-60
>18-24 m	45.0	13.2	25-70
>24 m	30.0	16.1	5-60

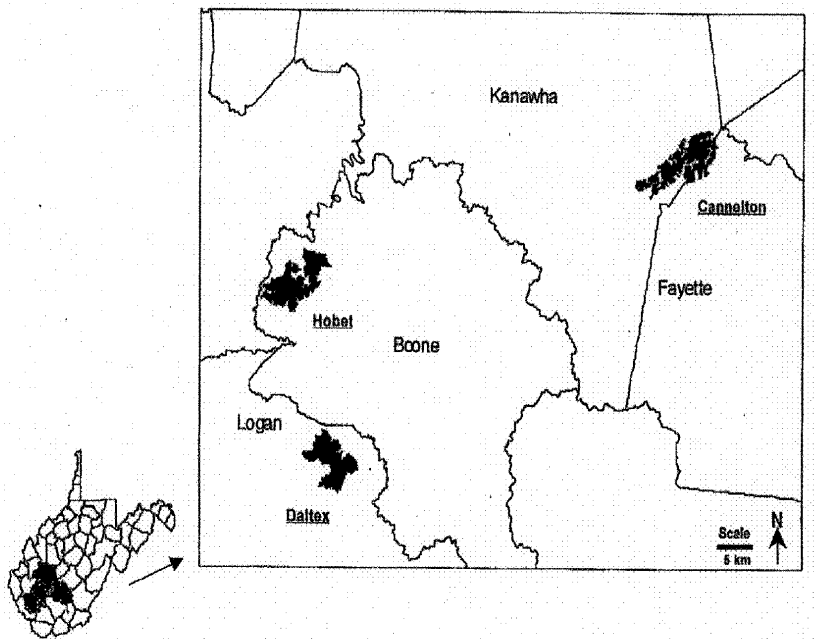


Figure 1. Location of the Hobet, Daltex, and Cannelton mountaintop mine complexes in southern West Virginia.

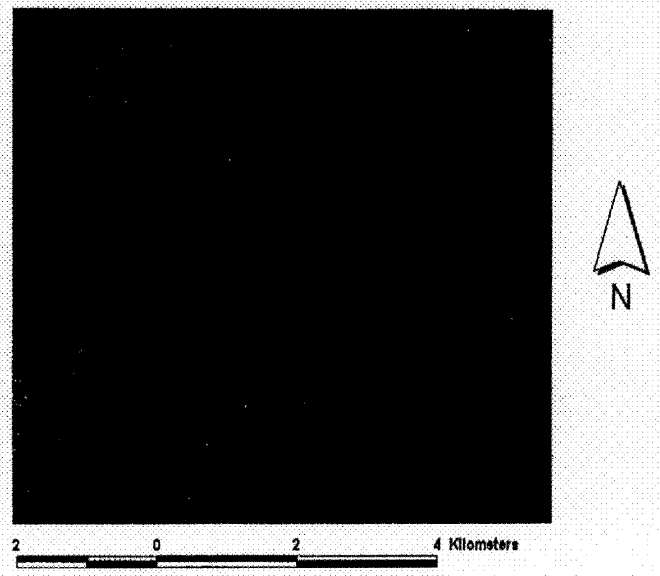


Figure 2. Aerial photo showing the location of study plots on and near the Cannelton mine complex. Plot boundaries are in red.

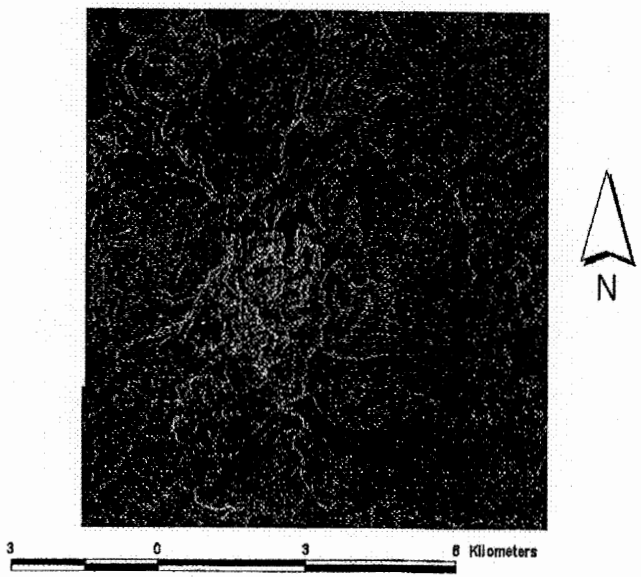


Figure 3. Aerial photo showing the location of study plots on and near the Daltex mine complex. Plot boundaries are in red.

31

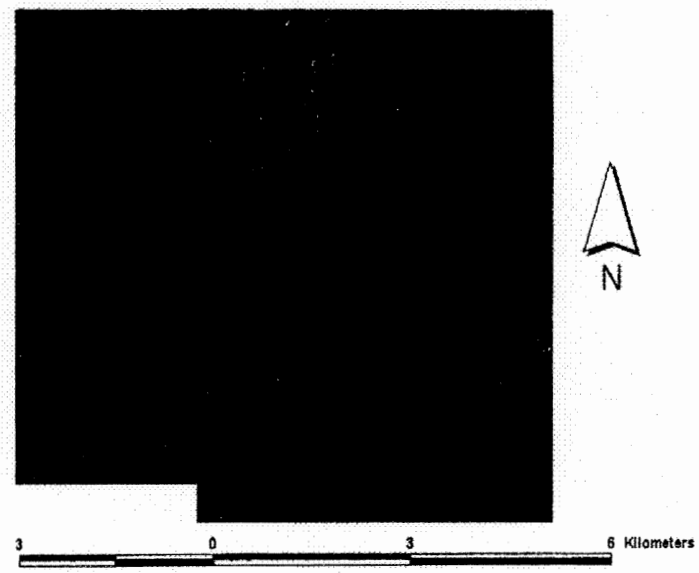


Figure 4. Aerial photo showing the location of study plots on and near the Hobet mine complex. Plot boundaries are in red.

32

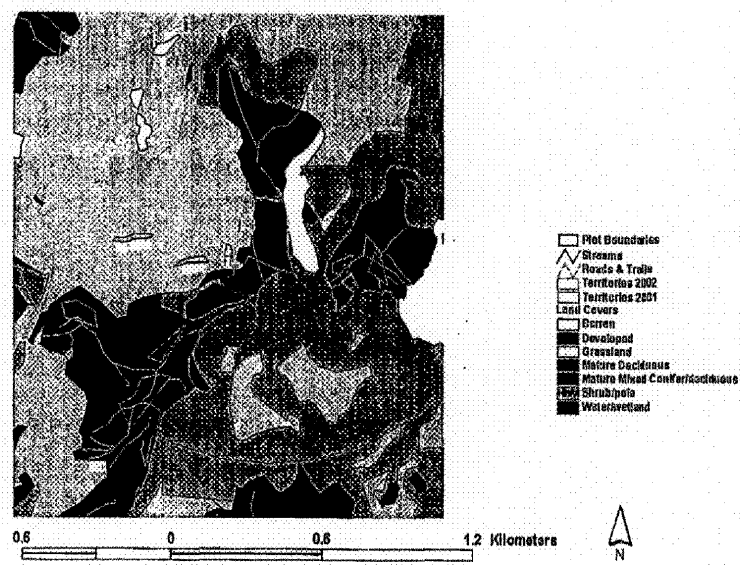


Figure 5. Fragmented forest plots and Cerulean Warbler territories in 2001 and 2002 at the Cannelton Mine.

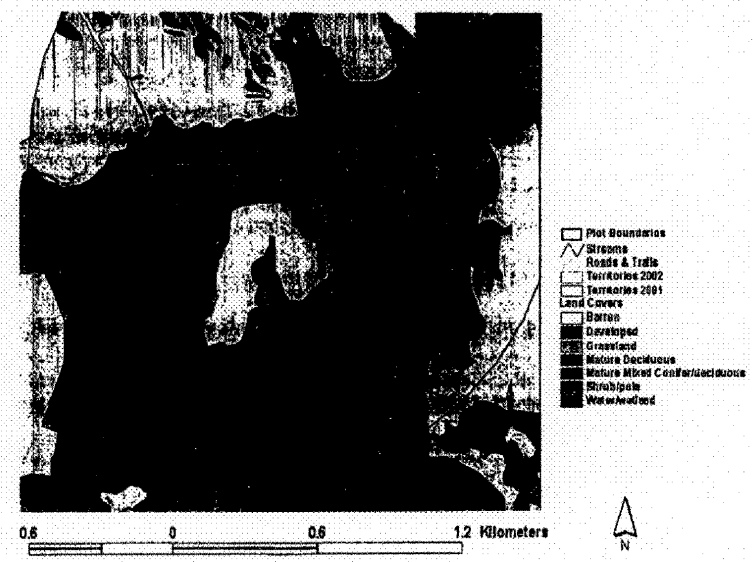


Figure 6. Fragmented forest plots and Cerulean Warbler territories in 2001 and 2002 at the Cannelton Mine.

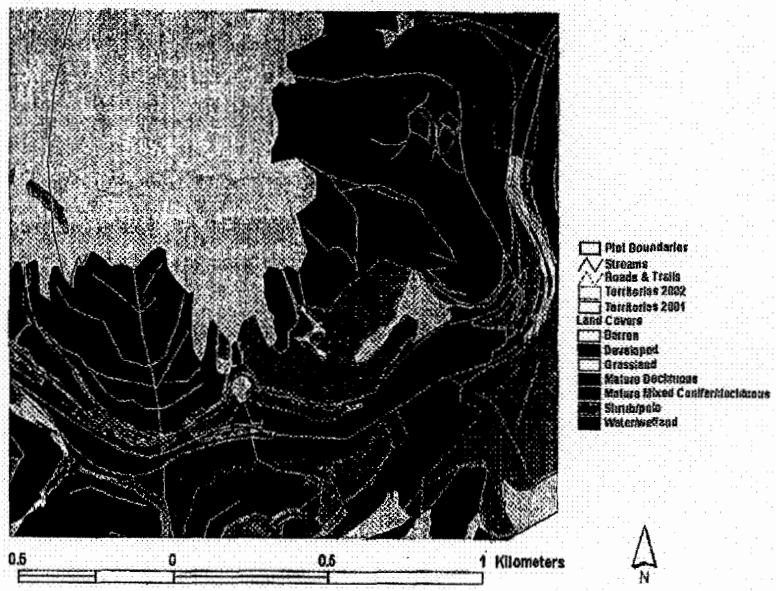


Figure 7. Fragmented forest plots and Cerulean Warbler territories in 2001 and 2002 at the Daltex Mine.

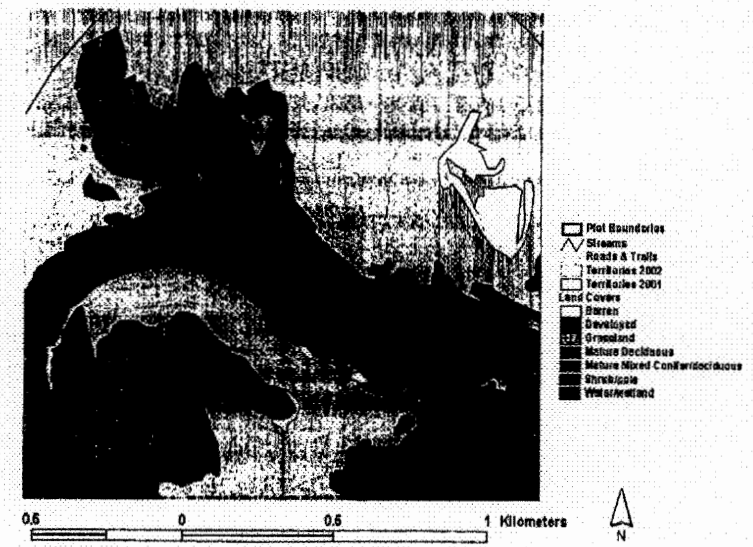


Figure 8. Fragmented forest plots and Cerulean Warbler territories in 2001 and 2002 at the Daltex Mine.

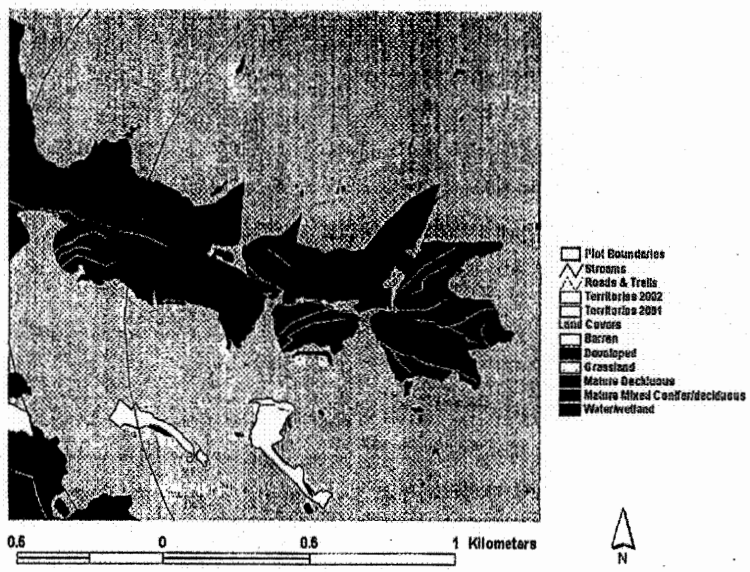


Figure 9. Fragmented forest plots and Cerulean Warbler territories in 2001 and 2002 at the Hobet Mine.

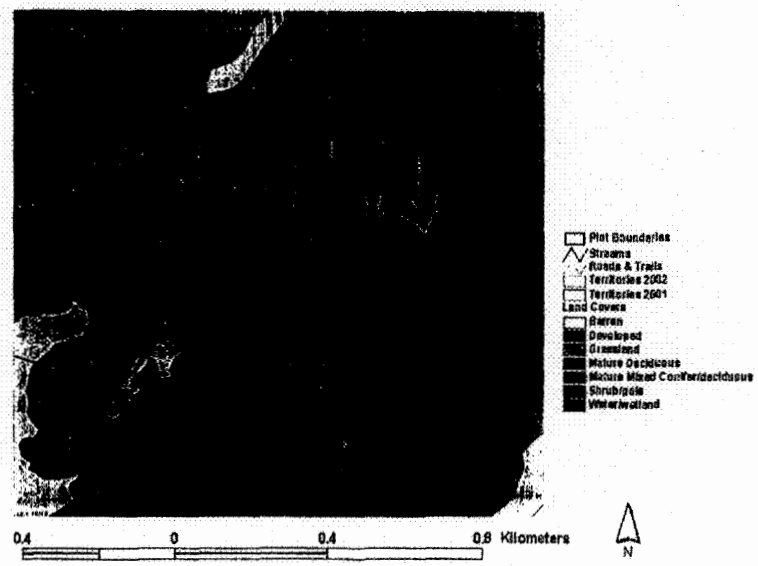


Figure 10. Fragmented forest plots and Cerulean Warbler territories in 2001 and 2002 at the Hobet Mine.

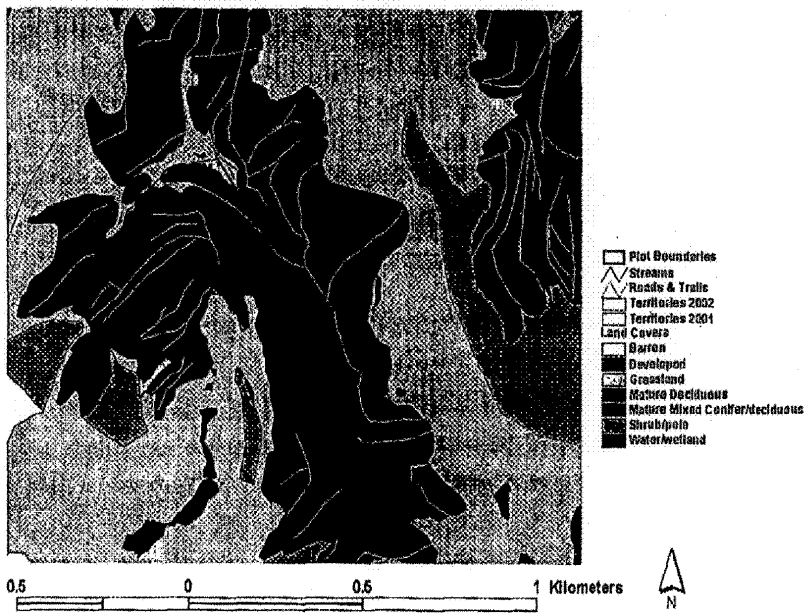


Figure 11. Fragmented forest plots and Cerulean Warbler territories in 2001 and 2002 at the Hobet Mine.

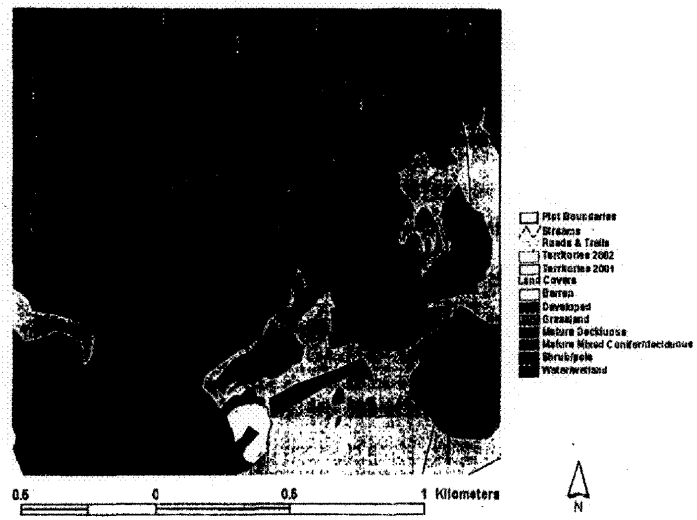


Figure 12. Intact forest plots and Cerulean Warbler territories in 2001 and 2002 at the Cannelton Mine.

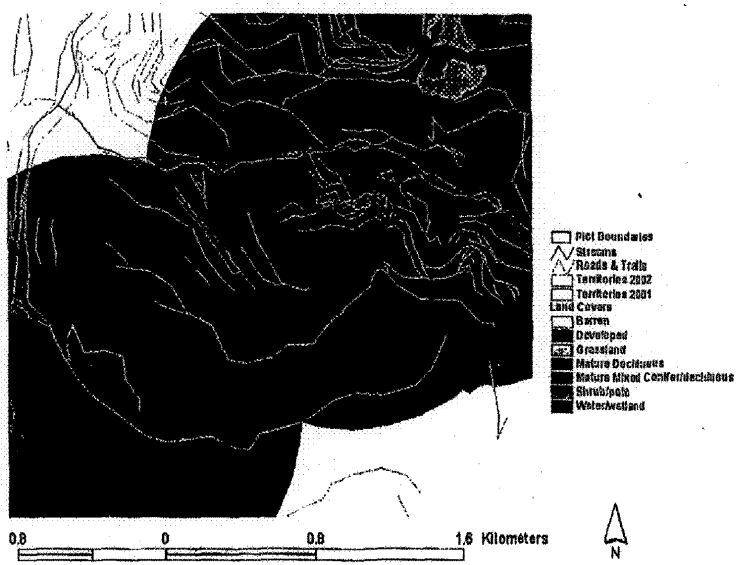


Figure 13. Intact forest plots and Cerulean Warbler territories in 2001 and 2002 at the Daltex Mine.

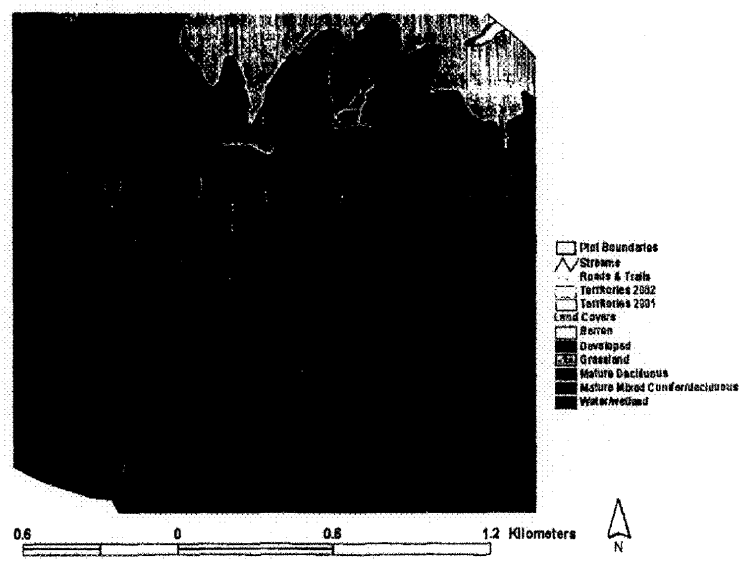


Figure 14. Intact forest plots and Cerulean Warbler territories in 2001 and 2002 at the Hobet Mine.

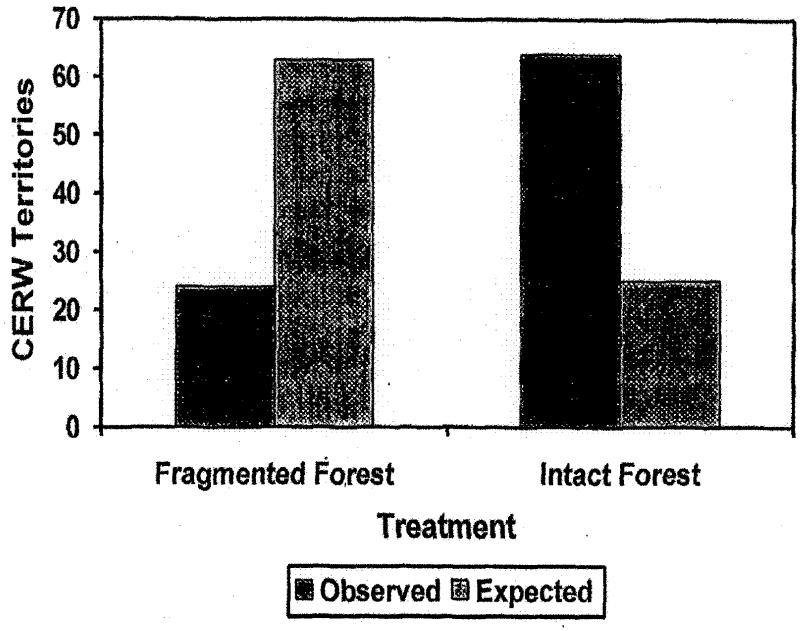


Figure 15. Observed and expected number of Cerulean Warbler (CERW) territories per 10 ha in forests fragmented by MTMVF mining and in intact forests in southern West Virginia 2000-2001. Expected number of territories are based on the amount of available habitat.

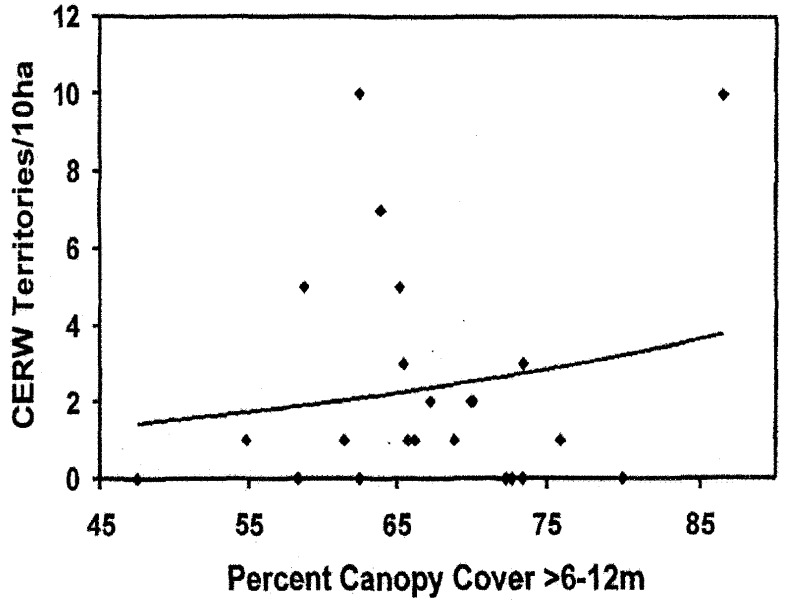


Figure 16. Relationship between Cerulean Warbler (CERW) territory density and percent canopy cover >6-12m.

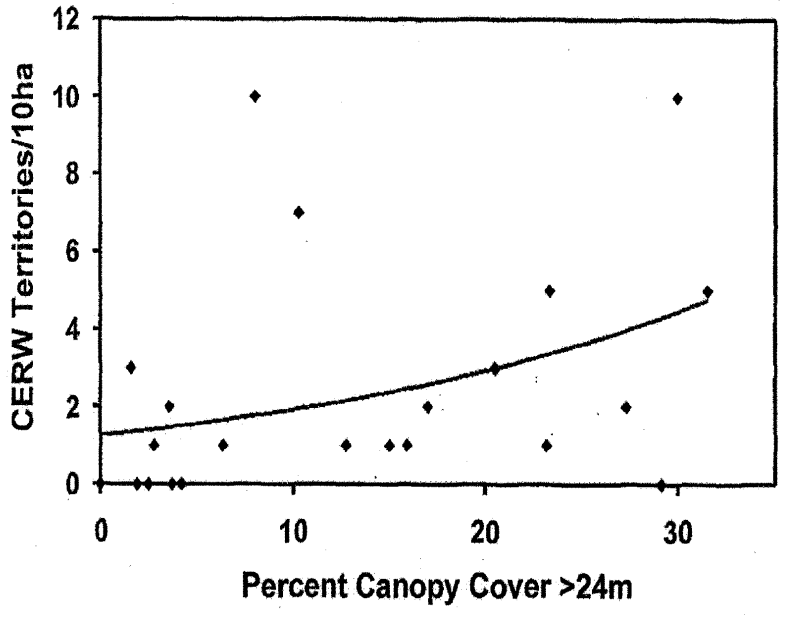


Figure 17. Relationship between Cerulean Warbler (CERW) territory density and percent canopy cover >24m.

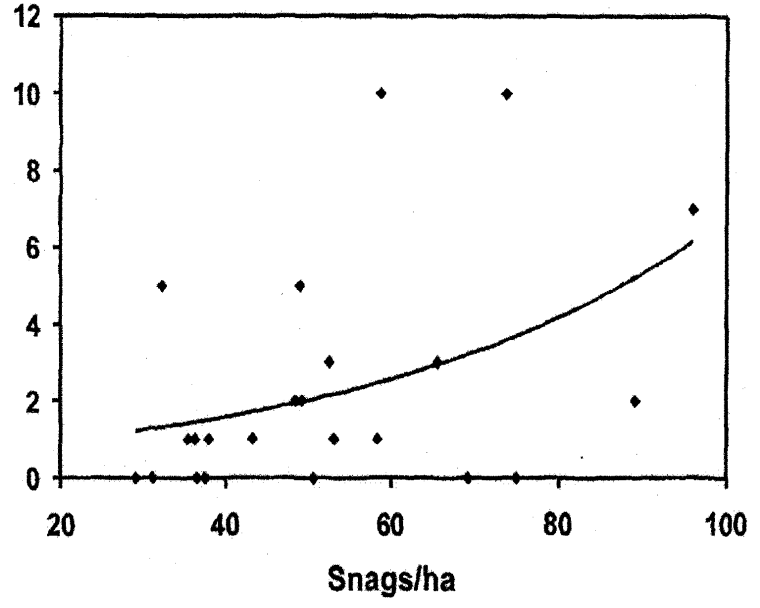


Figure 18. Relationship between Cerulean Warbler (CERW) territory density and snag density (standing dead trees >8 cm dbh).

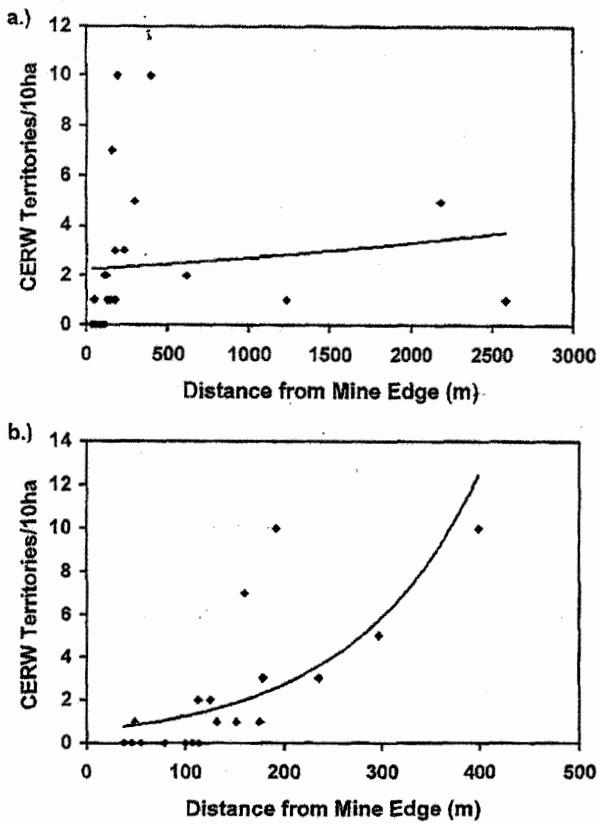


Figure 19. Relationship between Cerulean Warbler (CERW) territory density and distance from mine edge at a) all distances, and b) distances <500m.

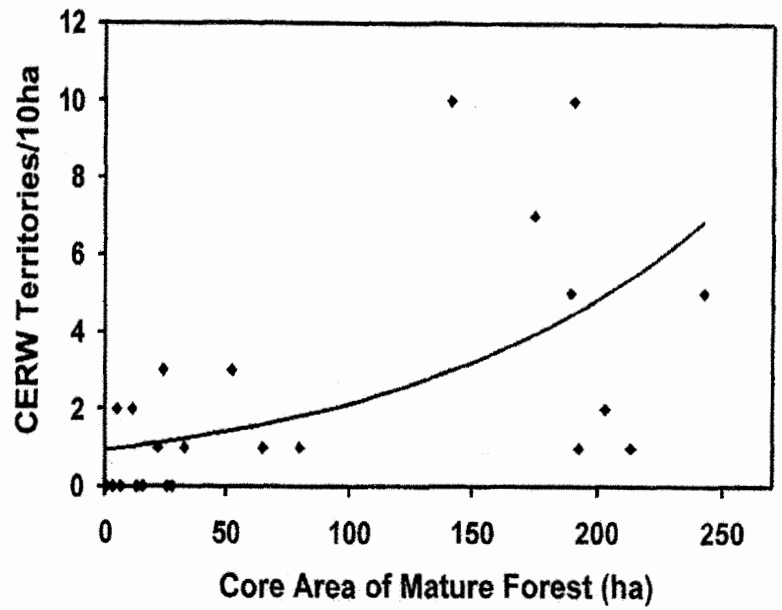


Figure 20. Relationship between Cerulean Warbler (CERW) territory density and core area of forest (forest >100m from an edge).

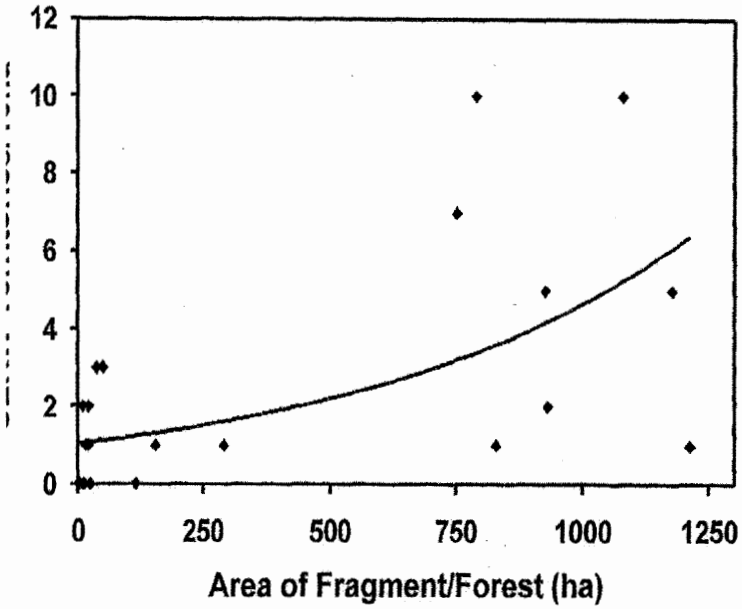


Figure 21. Relationship between Cerulean Warbler (CERW) territory density and area of forest fragment or area of continuous fore within 2-km of plot centers.

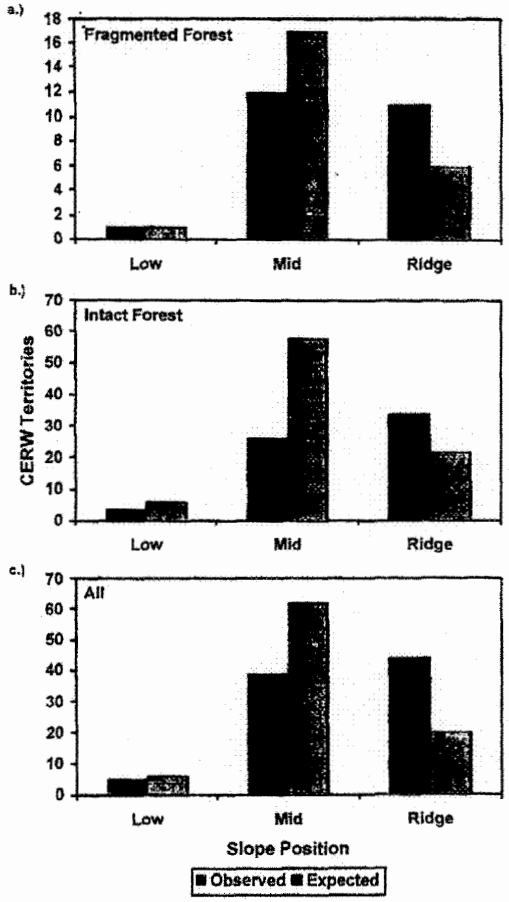


Figure 22. Observed and expected number of Cerulean Warbler (CERW) territories relative to slope position in a) fragmented, b) intact, and c) both fragmented and intact forests combined in southern West Virginia. Expected territories are based on the amount of available habitat.

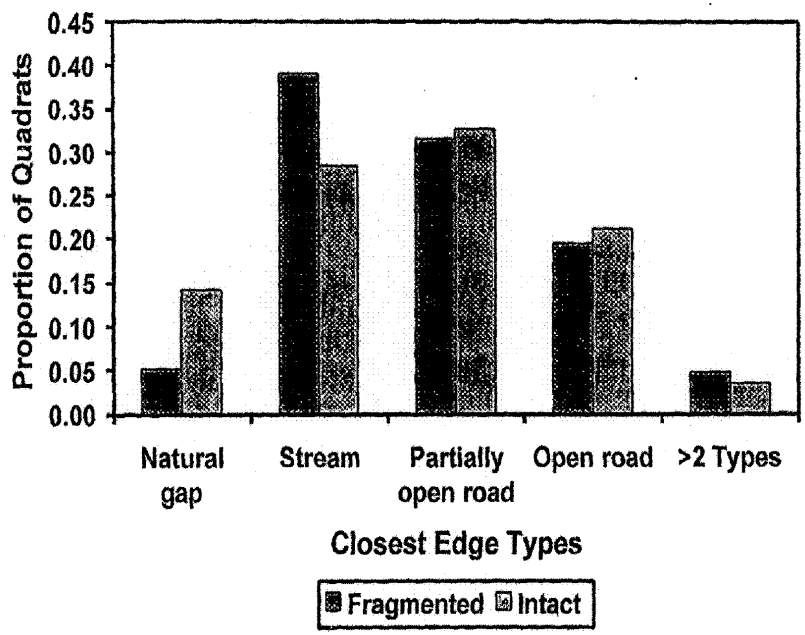


Figure 23. Distribution of closest edge types in forests fragmented by MTMVF mining and intact forests in southern West Virginia.

Appendix 1. Contrasts and weights used to calculate the contrast-weighted edge density[a].

Ecotone Contrasts	Weight
Mature Deciduous - Mature Mixed Conifer/Deciduous	0.00
Mature Deciduous - Grassland	1.00
Mature Deciduous - Barren	1.00
Mature Deciduous - Shrub/pole	0.50
Mature Deciduous - Water/wetland	0.25
Mature Deciduous - Developed	1.00
Mature Mixed Conifer/Deciduous - Grassland	1.00
Mature Mixed Conifer/Deciduous - Barren	1.00
Mature Mixed Conifer/Deciduous - Shrub/pole	0.50
Mature Mixed Conifer/Deciduous - Water/wetland	0.25
Mature Mixed Conifer/Deciduous - Developed	1.00
Grassland - Barren	0.25
Grassland - Shrub/pole	0.50
Grassland - Water/wetland	0.25
Grassland - Developed	0.25
Barren -Shrub/pole	0.75
Barren - Water/wetland	0.25
Barren - Developed	0.00
Shrub/pole - Water/wetland	0.25
Shrub/pole - Developed	0.75
Water/wetland - Developed	0.25

[a] Edge is the sum of the perimeters of all habitat patches. Edge density (m/ha) is amount of edge relative to the landscape area. Contrast-weighted edge density allows edges of different types to contribute varying amounts to this metric. Weights represent the magnitude of contrast between adjacent habitat patches. Ecotones were given weights relative to differences in vegetation structure.

Appendix 2. Means and standard errors of microhabitat variables at territory centers in fragmented (n=23) and intact forest (n=62) and at non-use subplots (fragmented=272, intact=140)

	Territories				Non-use Subplots				Combined			
	Fragmented		Intact		Fragmented		Intact		Territories		Non-use	
Variables	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Aspect Code	1.0	0.1	1.5	0.1	1.0	0.0	1.1	0.1	1.4	0.1	1.0	0.0
Slope (%)	38.4	4.9	47.7	2.1	38.6	1.3	44.7	2.1	45.0	2.1	40.7	1.1
Distance to closest edge (m)	22.6	6.3	33.2	4.1	38.4	2.5	29.5	2.8	30.2	3.4	35.4	1.9
Average canopy height (m)	18.5	1.0	17.6	0.4	19.8	0.3	18.5	0.4	17.9	0.4	19.4	0.2
Percent Canopy Cover:												
>0.5- 3 m	34.8	5.1	34.8	2.9	45.1	1.5	37.3	1.8	34.8	2.5	42.4	1.2
>3-6 m	59.3	6.0	53.6	3.1	64.6	1.4	57.6	2.1	54.6	2.8	62.2	1.2
>6-12 m	66.5	4.4	68.6	2.6	68.7	1.3	64.5	1.7	67.5	2.2	67.3	1.0
>12-18 m	69.8	5.1	62.7	2.7	61.5	1.5	61.3	1.8	64.4	2.4	61.4	1.1
>18-24 m	46.1	6.5	45.2	3.2	36.2	1.8	46.2	2.0	45.7	2.9	39.6	1.4
>24 m	8.7	3.2	19.0	3.0	11.3	1.3	17.9	1.8	16.8	2.4	13.5	1.1
Stem Densities (no./ha):												
<2.5 cm	9462.0	2725.9	6633.2	615.7	6204.5	451.6	6797.9	508.2	7389.7	863.9	6407.1	343.9
2.5-8 cm	809.8	97.8	698.8	60.8	852.0	37.1	859.0	57.7	722.1	51.6	854.4	31.3
>8-23 cm	3315.2	241.6	3438.5	177.6	403.4	13.6	343.1	13.5	338.5	14.4	382.8	10.1
>23-38 cm	1065.2	118.9	954.9	93.3	96.4	3.7	97.7	4.7	101.5	7.5	96.9	2.9
>38 cm	413.0	78.0	532.8	55.2	41.5	2.1	47.2	3.7	49.7	4.6	43.4	1.9
Snags >8 cm	630.4	84.5	586.1	75.4	48.9	2.8	49.3	4.7	59.7	5.9	49.0	2.4

Appendix 3. Means and standard errors of microhabitat and landscape variables in fragmented forests (n=15) and intact forest (n=8) in southern West Virginia.

	Fragmented Forest		Intact Forest	
Variables	Mean	SE	Mean	SE
Microhabitat				
Aspect Code	0.9	0.1	1.2	1.3
Slope (%)	41.5	2.8	45.6	5.1
Distance to closest edge (m)	35.3	4.3	28.8	4.8
Average canopy height (m)	19.6	0.6	18.1	2.2
Percent Canopy Cover:				
>0.5-3m	41.4	3.5	35.5	6.1
>3-6m	64.5	3.0	56.9	6.8
>6-12m	67.7	2.1	66.0	6.8
>12-18m	63.4	2.9	61.2	6.1
>18-24m	40.0	4.8	46.7	5.6
>24m	9.8	2.7	18.5	6.7
Stem Densities (no./ha):				
<2.5cm	5821.3	517.2	7191.3	1220.5
2.5-8cm	877.0	87.5	796.2	118.3
>8-23cm	392.9	29.4	350.2	53.9
>23-38cm	96.4	6.4	95.9	11.3
>38cm	41.6	4.8	48.0	6.7
Snags (>8cm)	51.7	4.5	54.1	8.5
Landscape				
Cover (ha):				
Barren	5.5	1.0	3.5	2.1
Grassland	146.0	16.1	31.5	32.8
Shrub/pole	47.7	10.1	12.0	5.6
Water/wetlands	2.0	0.3	0.4	1.4
Mature deciduous forest	91.1	9.6	247.0	38.9
Mature mixed conifer/deciduous forest	14.0	2.7	13.3	4.3
Developed	6.5	3.1	5.0	2.4
Fragmentation Indices:				
Contrast-weighted edge density	43.0	3.1	24.8	4.6
Core area mature forest	25.6	6.0	193.4	33.8
Distance to mine edge (m)	113.3	14.5	957.2	295.2
Area of fragment/intact forest	51.0	20.4	961.7	176.7

AMERICAN BIRD CONSERVANCY

CONSERVING WILD BIRDS AND THEIR HABITATS THROUGHOUT THE AMERICAS

January 2, 2004

John Paul Woodley, Jr.
Assistant Secretary of Army for Civil Works
108 Army Pentagon Room 3E446
Washington, DC 20301

Dear Assistant Secretary Woodley:

The Army Corps of Engineers has continued to issue mountain top removal/valley fill Clean Water Act permits in Tennessee, West Virginia, Virginia, and Kentucky for coal mining, despite the failure to complete an EIS. In Tennessee alone, permits by the Army COE have been issued for the removal and fill of over 5,000 acres of mountain tops in the last year. The 50 national and regional groups signing-on the attached letter urge you to end issuance of new mountaintop mining permits until an EIS is completed and adopted, as required by NEPA.

We believe that NEPA requires such a moratorium as the environmental impacts are so massive from the projected removal of 380,000 acres of mature deciduous forest on mountain tops and the placement of fill in stream valleys. Further, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current use of nationwide permits is illegal. 1-9

This forest destruction and concomitant valley fill is the greatest federally permitted land use alteration occurring in the United States. Please act to end issuance of CWA permits for these destructive practices until the EIS process is completed.

Thank you.

Sincerely,

Gerald W. Winegrad
Vice President for Policy

1834 JEFFERSON PLACE, NW • WASHINGTON, DC • 20036
PHONE: 202-452-1535 • FAX: 202-452-1534 • WEB: WWW.ABCBIRDS.ORG
E-MAIL: ABC@ABCBIRDS.ORG

AMERICAN BIRD CONSERVANCY

CONSERVING WILD BIRDS AND THEIR HABITATS THROUGHOUT THE AMERICAS

January 2, 2004

Jeffrey D. Jarrett, Director OSMRE
Dept. of Interior, Interior South Bldng.
1951 Constitution Avenue, NW
Washington, DC 20240

Dear Director Jarrett:

We write to urge your action to prevent the massive and permanent impacts on avian species, other wildlife and fish, and the entire ecosystem at risk from the projected loss of over 380,000 acres of high-quality forest to mountain top removal coal mining in Tennessee, West Virginia, Virginia, and Kentucky. This forest destruction and concomitant valley fill is the greatest federally permitted land use alteration occurring in the United States. The projected destruction is detailed in the draft EIS and would occur over the next ten years.

The EIS process has been usurped by Interior Deputy Secretary Griles order to remove all environmental alternatives from the DEIS. As outlined in the attached letter from 50 national and regional groups, the DEIS is grossly defective and needs to be re-written. We urge you to act to terminate issuance of new mountaintop mining permits until an EIS is completed and adopted, as required by NEPA. 1-9

The Army Corps of Engineers has continued to issue mountain top removal/valley fill Clean Water Act permits for coal mining, despite the failure to complete an EIS. In Tennessee alone, permits by the Army COE have been issued for the removal and fill of over 5,000 acres of mountain tops in the last year.

We believe that NEPA requires such a moratorium as the environmental impacts are so massive from the projected removal of 380,000 acres of mature deciduous forest on mountain tops and the placement of fill in stream valleys. Further, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current use of nationwide permits is illegal.

The DEIS is so defective that it fails to substantively discuss the significant impacts on the entire suite of Partners in Flight priority mature forest birds within the EIS study area e.g., Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, and Yellow-throated Vireo. All of these bird species are also classified as Birds of Conservation Concern by the U. S. Fish and Wildlife Service within the Appalachian Bird Conservation Region, which overlaps the area considered in the draft EIS. The destruction of the 380,000 acres will result in a loss of 137,836 Cerulean Warblers (ESA listing petition pending) the next decade. 4-2

Your intervention is urgently needed to prevent this ecological disaster.

Sincerely,

Gerald W. Winegrad
Vice President for Policy

1834 JEFFERSON PLACE, NW • WASHINGTON, DC • 20036
PHONE: 202-452-1535 • FAX: 202-452-1534 • WEB: WWW.ABCBIRDS.ORG
E-MAIL: ABC@ABCBIRDS.ORG

-----Original Message-----
From: Gerald Winegrad [mailto:gww@abcbirds.org]
Sent: Monday, January 05, 2004 10:14 AM
To: Trott, Katherine L
Subject: STOP Destruction of Entire Ecosystems from Mountain Top Removal/Valley Fill-50 Groups Protest

Dear Ms. Trott:

The DEIS is woefully inadequate to address the massive and permanent impacts on avian species, other wildlife and fish, and the entire ecosystem at risk from the projected loss of over 380,000 acres of high-quality forest to mountain top removal coal mining in Tennessee, West Virginia, Virginia, and Kentucky. This forest destruction and concomitant valley fill is the greatest federally permitted land use alteration occurring in the United States. The projected destruction is
detailed in the draft EIS and would occur over the next ten years. 4-2

The EIS process has been usurped by Interior Deputy Secretary Griles order to remove all environmental alternatives from the DEIS. As outlined in the attached letter from 50 national and regional groups, the DEIS is grossly defective and needs to be re-written. We urge you to act to terminate issuance of new mountaintop mining permits until an
EIS is completed and adopted, as required by NEPA.

The Army Corps of Engineers has continued to issue mountain top removal/valley fill Clean Water Act permits for coal mining, despite the
failure to complete an EIS. In Tennessee alone, permits by the Army COE
have been issued for the removal and fill of over 5,000 acres of mountain tops in the last year. 1-13

We believe that NEPA requires such a moratorium as the environmental impacts are so massive from the projected removal of 380,000 acres of mature deciduous forest on mountain tops and the placement of fill in stream valleys. Further, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current
use of nationwide permits is illegal.

The DEIS is so defective that it fails to substantively discuss the significant impacts on the entire suite of Partners in Flight priority mature forest birds within the EIS study area e.g., Cerulean Warbler, Louisiana Waterthrush, Worm-eating Warbler, Kentucky Warbler, Wood Thrush, and Yellow-throated Vireo. All of these bird species are also classified as Birds of Conservation Concern by the U. S. Fish and Wildlife Service within the Appalachian Bird Conservation Region, which
overlaps the area considered in the draft EIS. The destruction of the 380,000 acres will result in a loss of 137,836 Cerulean Warblers (ESA listing petition pending) the next decade. 7-3-2

The U.S. Fish and Wildlife Service's September 20, 2002 memo clearly supports our conclusion that the draft EIS is fatally flawed. The FWS warned in the memo that publication of the draft EIS as written, "will further damage the credibility of the agencies involved." That inter-agency memo cites the proposed actions offering "only meager environmental benefits" and criticizes the draft EIS because it did not
consider any options that would actually limit the area mined and the streams buried by valley fills. "There is no difference between [the alternatives]," the Fish and Wildlife officials said. "The reader is left wondering what genuine actions, if any, the agencies are actually proposing." The draft EIS erroneously only offers alternatives that would streamline the permitting process for approval of new mountaintop-removal permits. The alternatives, including the preferred alternative, offer no environmental protections and the lack of any such environmentally sound options destroys the NEPA EIS process. 1-5

The FWS memo argued for "at least one alternative to restrict, or otherwise constrain, most valley fills to ephemeral stream reaches...As
we have stated repeatedly, it is the service's position that the three 'action' alternatives, as currently written, cannot be interpreted as ensuring any improved environmental protection ... let alone protection
that can be quantified or even estimated in advance."

Your intervention in support of this U.S. FWS letter and the conservation of U.S. FWS Birds of Conservation Concern and other wildlife is urgently needed to prevent this ecological disaster.

We believe that NEPA requires such a moratorium as the environmental impacts are so massive from the projected removal of 380,000 acres of mature deciduous forest on mountain tops and the placement of fill in stream valleys. Further, the Clean Water Act dictates individual permits should be required for such major actions and thus, the current
use of nationwide permits is illegal. 1-13

Please act to end issuance of CWA permits for these destructive practices until a new DEIS is issued and the EIS process is completed.

Thank you.

Gerald W. Winegrad, Vice President for Policy
American Bird Conservancy
1834 Jefferson Place, NW
Washington, DC 20036
202-452-1535
VISIT OUR WEB SITE AT <http://www.abcbirds.org>
(See attached file: MtnTopMiningComments50GroupsJan2.wpd)

Citizens

Michael Abraham

REC'D AUG 2 1 2003

304 Royal Lane
Blacksburg, VA 24060

August 12, 2003

Mr. John Forren, US EPA
1650 Arch Street
Philadelphia, PA 19130

Dear Mr. Forren:

PLEASE, PLEASE STOP MOUNTAINTOP REMOVAL MINING!!!

Mountaintop Removal mining is devastating huge swaths of land in Southern West Virginia and elsewhere throughout the mid-Appalachians. Each site is irreversibly and substantially harming the forests, streams, wildlife, and communities nearby. I envision no circumstances under which it should be allowed to continue. 1-9

Sincerely,

Michael Abraham
bikemike@swva.net

David Brandon Absher

1-19-04

John Forren
US. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 2 3 2004

I am writing in opposition to mountain top removal and valley fills, more specifically, in opposition to the Environmental Impact Study released in May which inexcusably fails to consider banning mountaintop removal altogether and, instead, recommends the repeal of the stream buffer zone rule. Mountaintop removal is a deadly practice that subjects the surrounding environment to intense degradation. Yet the EIS documenting this devastation turns a deaf ear to the suffering of the environment and the plight of the surrounding population by proposing three alternatives that allow for the repeal of the stream buffer zone rule. Lest it be considered ill-advised on my part to suggest that these alternatives are, in effect, no alternative and, rather, represent the triumph of a greed that knows no bounds, I point to the fact that the EIS itself reports that 724 miles of streams across the Central Appalachian Region were buried by valley fills between 1985 and 2001 and that these fills have been extremely harmful to downstream aquatic life. Notwithstanding the fact that the EIS overlooks the banning of mountaintop removal as a viable alternative, the proposal to repeal the stream buffer zone rule is obviously ludicrous 1-9

1-5

REC'D JAN 23 2004

and plainly incongruous with the government's mandate. On what grounds could it be considered and, moreover, maintained that the relaxing of restrictions pertaining to valley fills and mining permits would ease the deleterious effects of mountaintop removal and valley fills? I maintain that there are none. I am led then to ask a second question: On what grounds would these rules be relaxed? It is manifest that there could be no consideration in the public's interest in virtue of which these rules would be relaxed. In effect, these proposed rule changes are a gift. They are a gift from George Bush to his friends in the coal industry. They are a gift wrapped and sealed at the price of a vibrant and lush environment and the sustainability of the economy of the surrounding population. I assert, then, that it is your obligation to act against these proposals and for the end of mountaintop removal.

Sincerely,

David Brandon Abshire
418 Aylesford Pl. Apt. #3
Lexington, Ky 40508

---- Forwarded by David Rider/R3/USEPA/US on 01/23/2004 09:42 AM ----

Mark Abshire <abear469@bellsouth.net> 01/20/2004 04:16 PM

To: R3 Mountaintop@EPA
cc:
Subject: Strip Mining

I was born in and grew up the first few years of my life in the Appalachian Coal country. Recently I returned for a visit and did not recognize most of my area. This type of mining is not good for the environment nor the people there. Please stop it. 1-9

Mark Abshire

REC'D DEC 2 9 2003

Adams
760 Strawberry Fields
Gurnee, IL 60031

Dec. 22, 2003

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

Please do not allow the Bush administration to weaken environmental protections that apply to the companies that are conducting mountain top removal. 1-10

The data contained in the draft EIS and its accompanying studies confirm that the environmental harm caused by mountain top removal and valley fill operations is significant and most likely irreversible.

The environmental and economic studies prepared for the draft EIS do not lend any support to the administration's proposed "preferred alternative" that recommends weakening existing environmental laws that limit the size and location of valley fills. In fact, the studies support the opposite conclusion: mountaintop removal must be much more strictly limited to head off additional and significant devastation of the Appalachian region's natural resources. 1-5

Sincerely,
Lorraine J. Adams

Knox Adler
Date: 01/05/2004
City: Marthasville State: MO Zip: 63357

I strongly urge you to ignore the alarmists that think that mountaintop removal mining is harmful. We need to restart developing our own natural resources so we will be less dependent on foreign countries for our energy supplies. 1-11

--- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

Geert Aerts
<gaerts@blmet.com
>
01/02/2004 02:28
PM

To: R3 Mountaintop@EPA
cc:
Subject: RE: Draft mountaintop removal mining EIS.

January 2, 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear John Forren,

I want mountaintop removal mining limited.

I want the EPA to consider alternatives that reduce the environmental impact of mountaintop removal. 1-5

Sincerely,

Geert Aerts
17635 Henderson Pass Apt 723
San Antonio, TX
USA

REC'D JAN 13 2004

Mr. Forren, January 12, 2004

I am writing to let you know that I am unequivocally AGAINST mountaintop removal mining, the resulting valley fills, and any changes that would weaken the already minimal laws and regulations that protect clean water. Coal companies should not be allowed to dump mining waste into our streams and waterways. The buffer zone of 100 feet is a minimum distance to avoid negative impacts on water quality in Kentucky. According to the federal government's (EPA) own Environmental Impact Statement many hundreds of miles of streams throughout Kentucky and central Appalachia have already been negatively impacted by such dumping. Please do not vote to continue or worsen this practice. I do not support Alternatives #1, 2 or 3 contained within the EIS report. None of these options will protect our water or our communities. Instead of doing things the old, destructive way, why not aggressively pursue alternative, renewable sources of energy to ensure clean water, a healthy environment and safe communities for future generations. 1-9 1-10 1-5

Sincerely,
Lee Agee
Louisville, Ky 40218

REC'D JAN 16 2004

Tuesday,
January 13, 2004

Dear Mr. Forren,

I'm past the deadline for comments on the issue of the environmental effects of mountaintop removal coal mining but I decided to write anyway as I believe strongly in the devastating effects of this detrimental policy. It feels good to share the wisdom I've gained and the concerns I have for the environment and people in the areas where this practice is continuing.

Sound science demonstrates to us the irreversible, severe effects of a procedure that is widespread: filling valleys with debris; burying streams; acres of forest are covered with no protection for the wildlife habitat or safeguards for the communities that depend on the region's natural resources now and in the future — let alone clean air and water for today! Even the administration's draft EIS was explicit in the description of the effects. Yet because our country depends on coal for half of our electrical demand, the 1-9

Bush Administration is allowing this practice of removing whole mountaintops to continue and is even making it easier for coal companies to obtain permits. This same Administration opposes clean energy policies such as a renewable electricity standard, which would ensure that 10% of our power comes from clean renewable sources by 2020.

I urge you, sir, to consider alternatives to this wasteful and devastating practice. Think of the impact you could have as a thoughtful individual with the power to influence others and to be a voice for the common citizens living in these areas — the earth and the wildlife that are threatened!

Peace,

Sandy Ahlstrom
6085 Riviera Lane
Shorewood, MN 55331

December 28, 2003 REC'D JAN 0 2 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I am writing in concern mountaintop strip mining in the appalachian region. This coal mining practice, I'm sure you're aware, involves blasting hundreds of feet off the tops of mountain peaks to reach coal seams, then pushing millions of tons of resulting rubble into surrounding valleys and streams. This practice has destroyed at least 700 miles of streams in the appalachian area since 1985. Although an EIS regarding mountaintop mining was released in May 2003, it does not adequately address the environmental impacts. I urge that regulations regarding this practice are not further weakened and that we strongly protect our river heritage - more precious than short-term economic goals. 1-9

1-10

Thank you for your attention to this matter.

Sincerely,

Julie Alaimo
8515 13th Ave. NW
Seattle, WA 98117

George & Frances Alderson
112 Hilton Avenue
Baltimore, Maryland 21228

December 14, 2003 REC'D DEC 1 7

Mr. John Forren
US Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia PA 19103

Dear Mr. Forren:

Please include this letter as a comment on the draft EIS on mountaintop removal coal mining.

We have seen the impacts of surface coal mining in the mountains of western Maryland and southwestern Pennsylvania, and we are very concerned that those destructive projects may be allowed to multiply under current plans of the Bush Administration.

We ask EPA to reject the "preferred alternative" that eliminates restrictions on the use of mountaintop removal as part of coal mining operations. We understand that the preferred alternative eliminates a rule barring disturbance within 100 feet of streams, it places no limits on the size of valley fills nor on the acres of forests that can be disturbed, and it contains no measures to safeguard wildlife habitat. 1-13

We ask EPA to develop instead a preferred alternative that has the following features:

- Measures to reduce the environmental impacts of mountaintop removal.
- Prohibit mountaintop removal where the impacts exceed a certain threshold.
- Restrict the size of valley fills to an appropriate numerical standard, so as to reduce the loss of streams and forests and the wildlife found therein.
- Require consideration of alternatives for individual mining projects, so their environmental impacts can be considered on a site-specific basis, including the cumulative impacts of mountaintop removal at different sites. 1-6

Thank you for considering our views.

Sincerely,

George & Frances Alderson

George & Frances Alderson

January 2, 2004

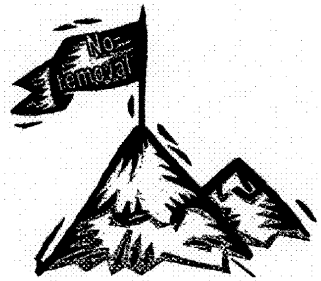
Jonathan Alevy
Hyattsville, MD 20782

A while back I had the opportunity to visit with farmers in all parts of the state of Maryland to discuss their managment of nutrients, which, as I am sure you are aware, can cause serious environmental harm if used inappropriately. After one visit near Cumberland in the center of the state a farmer asked me to join him in his vehicle to look at something he thought was a more serious environmental concern.

After driving up the road from his farm just a mile or so, we walked into the woods towards a stream, that was shockingly reddish in color, almost a bright "blood red." The farmer attributed the problem to the mining taking place at the streams source at the mountain top. I believe this type of dramatic damage needs to be addressed in a responsible way and urge you to take the necessary care to be sure that mountain top mining is restricted so that these severe environmental harms are avoided and where damage currently exists, that these sites are restored. Thank you for your consideration of this important issue. 5-5-2

REC'D AUG 1 8

Deborah C. Allen, 149 E. Broadway, Madisonville, Ky. 42431



John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

August 13, 2003

Dear Mr. Forren,

I oppose mountaintop removal and valley fills and any change in the buffer zone rule. I'm disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. We look to people we have put in charge to protect this precious land we are borrowing for our brief life from the greedy who only see profit. 1-9 1-10

sincerely yours,

Deborah C. Allen

Deborah C. Allen

Chrisambr@aol.com
To: R3 Mountaintop@EPA
08/15/03 10:10 AM cc:
Subject: Re: EIS

A CD is fine. My address is:

Christopher Ambrose
7815 Lambkin Court
Lorton, VA 22079

I lived in West Virginia years ago and, during a visit, was shocked at the destruction the mining industry has caused since I left. I am very interested in this issue. If it is not too much trouble, could you send two copies? 3-1

Thanks

Chris

Christopher Anderson <mustainurworld@comcast.net>
To: R3 Mountaintop@EPA
cc:
Subject:
12/17/2003 09:36 AM

In May 2003, you released a long-overdue draft environmental impact statement (DEIS) that was required by a 1996 legal settlement. The DEIS was supposed to evaluate alternatives to mitigate the impacts of mountaintop removal mining. The DEIS falls far short of that goal. Instead, the Administration is proposing that this type of mining continue and offers steps to accelerate the permitting process. All three alternatives identified would eliminate a 25-year-old rule that prohibits mining impacts within 100 ft of streams. 1-5

Mountaintop removal is a particularly brutal form of strip mining that has been used in Appalachia to blast hundreds of feet off the tops of mountains to gain access to thin coal seams. Forests are leveled and wildlife habitat is destroyed. Millions of tons of rock and soil from the obliterated mountain tops are pushed into valleys, causing further devastation, including burial of the vital headwaters of rivers. Estimates cite 700 to 1200 miles of rivers have already been buried or otherwise damaged by mountaintop removal.

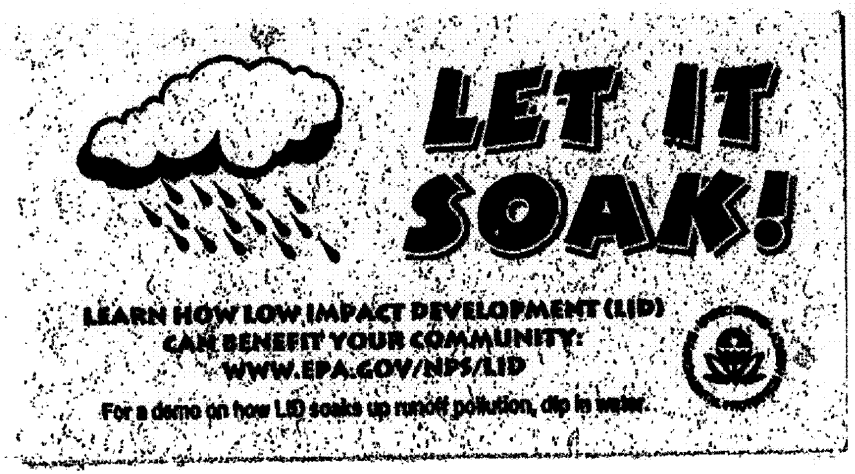
All three alternatives in the draft environmental impact statement are unacceptable. I am staunchly opposed to mountaintop removal mining and crossridge mining too, which supposedly will "restore" contours after blasting off the mountain tops. From you, the Environmental PROTECTION Agency, I demand stronger environmental protection for our waterways from the impacts of mining, not the typical Bush administration's system of expedited permitting. 1-9

Given the current FDA health advisory limiting women and children to one locally caught fish a week (no more, even store bought for rest of said week), I cannot allow such a further attack on Tennessee's waterways. We

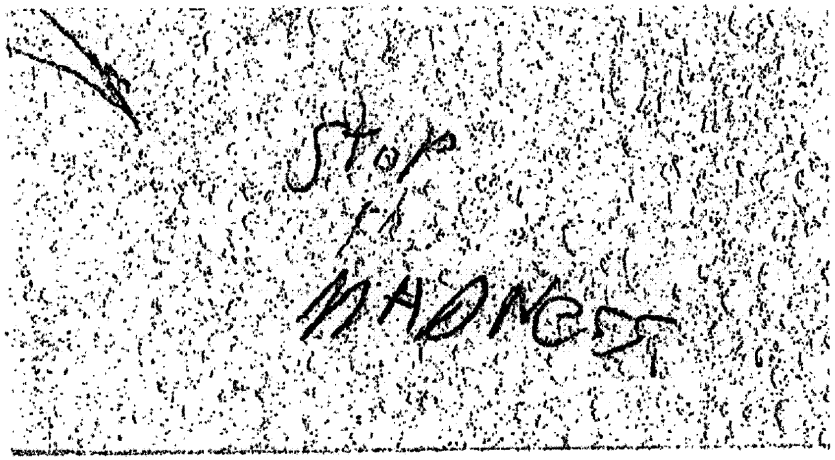
are facing a very serious problem where the future of our children are concerned. Please do not further exacerbate this already tenuous link between us and our natural heritage.

Adamantly,

Christopher Anderson
6218 Belle Rive Dr.
Brentwood, TN 37027



1-9



1-9

07/24/03 The presentations by environmentalists — those against MTR — were truly inspirational!

1-9

Date: 12/24/2003
City: Brighton State: Co Zip: 80603-8705

My review of the DEIS on mountaintop removal coal mining revealed major conflicts with what is called for by the CEQ regs. These regs, as you well know, require that the preferred alternative be the one which has minimal environmental impact commensurate with project objectives. The regs also require that the best science available be used and off site impacts be fully evaluated. All feasible alternatives are to be considered. The tactic of presenting only far out alternatives and a preselected alternative so the preselected on is the best choice is forbidden. This DEIS falls short on all of these requirements. While it does present elements of good science, it ignores them when selecting a preferred alternative. The EPA should designate this DEIS as inadequate and require a revised version that fully recognizes all of the environmental and economic impacts on the communities involved. The revised DEIS should present the best 4 or 5 alternatives that takes into full account the results of the supporting studies concerning all impacts and project objectives. Most of all, a DEIS is no place to alter existing regulations such as the placement of fill near streams. As a past Region 6, FWS, Environmental Officer for 8 years, I have seen some real once-over-lightly DEIS's and some right devious ones. This DEIS is one of the worst I have seen. 4-2

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"arringtj@casco.net" <arringtj 01/06/2004 02:09 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Once again, the Bush administration is putting business ahead of people, profit ahead of the environment, money ahead of public health. I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. Once again, the Bush administration is pushing a policy that would degrade the our quality of life while making a few people richer. 1-9

Please protect Appalachia.

Sincerely,

Julie Arrington

Julie Arrington
534 NW Maxine Avenue
Corvallis, OR 97330
arringtj@casco.net

Gordon J. Aubrecht, II
Date: 1/05/2004
City: Delaware State: OH Zip: 43015

I am unhappy to learn that the current (Bush) administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out for bury streams, and destroy communities despite the wishes of many West Virginians and o affected by the probable decision to go ahead. I agree with many of Julia Bonds' criticisms expressed at the EIS meeting in July, 2003. 1-9

According to the administration's draft Environmental Impact Statement (EIS) on mountai removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet, the draft EIS proposes no restrictions on the size of valle that bury streams, no limits on the number of acres of forest that can be destroyed, no prot for imperiled wildlife, and no safeguards for the communities of people that depend on th region's natural resources for themselves and future generations. As has been reported in s places , many residents are afraid that there will be "noise and dust from blasting, the loss streams buried by valley fills and the fear of flooding from overloaded sediment ponds or slurry impoundments." The EIS states that the region has lost 6.8% of its forests to mountaintopping, and 724 miles of its streams to valley fills, to the detriment of all Ameri This adversely affects local water quality and alters runoff characteristics. Without new lir mountaintop removal, or a return to those measures proposed by the Clinton administratio large area of of mountains, streams, and forests will soon be destroyed by mountaintop pir Many state studies have asserted that regulations in place are not being enforced, accordin the EIS. 1-5

These state measures should be supported strongly by the federal government, which acco to my reading the EIS did not recommend. In light of these facts, I urge you to consider alternatives that reduce the environmental impacts of mountaintop removal.

Thank you for your consideration on this important issue.

---- Forwarded by David Rider/R3/USEPA/US on 01/30/2004 11:21 AM -----

Harvard Ayers <harvard@boone.net> To: R3 Mountaintop@EPA
cc:
Subject: Mountaintop Removal EIS
01/21/2004 11:31 AM

Dear EPA person-

I have taken many trips over the last 10 years from my home in the Blue Ridge Mountains of North Carolina to the coalfields of West Virginia and Kentucky. I have flown many times in a small plane over the areas that have mountaintop removal mines. I am also conducting a satellite analysis of how much expanse of the appalachian coalfields have been destroyed by MTR. 9-1-5

My analysis indicates that about 1 million acres of West Virginia, Kentucky, Virginia and Tennessee have already been leveled, with much more to come. If the current practice continues at today's pace, it will truly go from "Almost Heaven, West Virginia," to "Almost Level, West Virginia." I have sobbed with several other people at a time in the flights. These people have included average people, national Congressional staff, ministers, media, pretty much folks from all walks of life. 10-4-2

Also, I have talked to many folks in the coalfields and spent the night on their floors to gain a better understanding of the human tole of MTR. Along with a geologist colleague of mine at Appalachian State University, I have investigated a huge mining crack on Kayford Mountain, WV, which looms over the valley town of Dorothy. The investigation of the geologist indicated that a potential landslide which he saw evidence of could cover the town with 200 feet of rubble in seconds from the time it broke loose, killing all the residents.

I have seen a lot of environmental threats over the country, and I have never seen anything like the effects of Mountaintop Removal. I therefore urge you to reflect the devastation currently being caused by this practice and I ask you to recommend restrictions that will stop the devastation. I urge you not to do another sham study that I have come to expect from the Bush EPA. Acknowledge that there is tremendous problem to people and the environment and take the steps necessary to rein in the out-of-control corporations (Arch, A.T. Massey, etc.) and stand up for what's right!

If you haven't had the opportunity, I'll be glad to provide a flight for you, who ever you are and anyone else in EPA that might not have seen what you are regulating from that perspective.

Sincerely,
Harvard Ayers
Professor of Anthropology
Appalachian State University
Boone, NC 28607 - 828-262-6381

Aug. 16th

REC'D AUG 26 2003

To John Foren US EPA.
Re: Mountain removal -
Are we really going to allow the most beautiful & Biologically diverse part of Kentucky to be destroyed?! The EIS is shameful!!

Janet M Ayward

Ms. Janet M Ayward
521 Zorn Ave Apt 6
Louisville KY 40206-1459

1-9

----- Forwarded by John Forren/R3/USEPA/US on 01/06/2004 09:12 AM -----

wycbaird <wycbaird@erols.c om> 01/05/2004 10:54 PM

To: John Forren/R3/USEPA/US@EPA

cc:

Subject: MTR EIS

Mr. Forren,

I urge you most strongly to take the findings, rather than the recommendations from the EPA environmental assessment to mountaintop removal as your guide in rule making. It is all about the resource. How can there be questions of whether or not water quality is impacted when the stream is buried? I was fortunate enough to visit the Charleston area in 2000 as part of a delegation of the Izaak Walton League of America. As a result of our investigation we developed the following resolution. http://www.iwla.org/policies/

5) The practice known as mountaintop removal and valley fill is growing and resulting in permanent damage to, and loss, of forest and headwater streams, especially in the Appalachian Mountains. The League strongly urges that no variances or waivers to existing stream buffer zone requirements of the Surface Mining Control and Reclamation Act be granted by state and federal agencies for valley fills associated with mountaintop removal mining. 1-10

Please consider before you become the next in a series of agency people who are asked by the Administration to act contrary to what good science
has plainly shown.

Thank You for your time and interest.

Jim Baird

Takoma Park, MD

REC'D AUG 0 4 2003

DRaft EIS (Environmental Impact Statement).
I don't agree with the Environmentalists.
I have lived in Ky. for 44 years. our Family's have lived around strip Jobs, and Coal mining Company's all our lifes. we own 50 Acres of land. this land Was strieed over 15 years ago. It is home to Elk Deer's, Turkey. and every animal made by God. 7-2-2
because of this land being strived. I have a place for my 3 Son's to put homes. 10-3-2
my Family enjoy the strip Job around us, we can fish, and catch 17 inch Bass in the Pond's you can four wheeler Ride, Campout. It's like having a park in your door. People come from all over to enyoy. these places. 6-2-2
we don't hurt Ky. and the people who live here.

Ray & Arlene Baker
970 Big Rock Rd
Yeaddiss, Ky
41777.

Isabel Balboa

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"isabel_balboa@hotmail.com" <isabel_balboa

To: R3 Mountaintop@EPA

cc:

Subject: Please Stop Destructive Mountaintop Removal Mining

01/06/2004 12:42 PM

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

I urge you to immediately amend the draft EIS accordingly. Every time you destroy the environment, Satan smiles.

Sincerely,

Isabel Balboa
4018 West 175 St
Torrance, CA 90504
isabel_balboa@hotmail.com

Jessie Ballowe

January 16, 2004

REC'D JAN 2 6 2004

Mr. John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am writing to inform you of my feelings concerning some topics in the most recent EIS. I oppose mountaintop removal mining, valley fills and any change to the buffer zone rule. These issues have been brought to my attention recently. I was informed a letter to you might do some good. I truly hope that it will be taken seriously and not tossed aside. I understand you are a very busy man and have an enormously important job. Please take into consideration some of my concerns when addressing the issues in the future. 1-9

I will not go into tedious details, but I am upset that specific restrictions on the use of valley fills were rejected with such little consideration. In addition I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. I do not support alternatives #1, 2, or 3 contained within the EIS report. None of these options will protect our water or our communities. 1-10 1-5

I bring these concerns to you in hopes that you will keep an open and determined mind. Our environment is precious and our water and land are the most valuable pieces of the puzzle of life. Thank you for your time and consideration.

Sincerely,

Jessie Ballowe

Jessie Ballowe

1409 BONNYCASTLE AVE.
LOUISVILLE, KY 40205

REC'D JAN 0 5 2004

John Farren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

I oppose mountaintop removal or any mountaintop disturbance, valley fills and any change in the buffer zone rule. 1-9
I grew up on Pine Mt in southeastern KY., and others should have the same or similar opportunity(ies). Shame on you Bush people. Shame!

Carl B Banks
42 Virginia Ave
Whitesburg KY 41858

REC'D JAN 2 6 2004

Jan 20, 2004

Dear Mr. Farren,

The Bush administration's plan to let coal companies destroy Appalachia with mining that levels mountain tops, wipes out forests & buries streams is unacceptable. Mountain top mining and valley fills should not be allowed and laws that protect water must not be weakened. I am angry that the gov't ignored its own studies when it proposed weakening protections for the people and the environment 1-9 1-10

Yours truly,
Israel Baran
Santa Clarita, CA

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:52 PM -----

RBaskin@aol.com
To: R3 Mountaintop@EPA
01/03/2004 09:44 AM
cc:
Subject: Strengthen draft EIS on mountaintop removal coal mining

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103
Email: mountaintop.r3@epa.gov

Dear Mr. Forren,

For years, land reclamation after strip mining has been a recognized need. Yet the extent to which the land area is returned to it pre-mining state has been a subject of great controversy. Obviously, the economics of strip mining become that much less viable the more extensive the reclamation. Still, there must be a balance between the immediate gains of strip mining versus the degradation of the area once the strip mining is complete.

Mountaintop mining is particularly troubling given that it level mountaintops, wipes out forests, buries streams and destroys communities. According to the draft EIS, the environmental effects of mountaintop removal are widespread, devastating and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife and no safeguards for the communities that depend on the region's natural resources for themselves and future generations. Instead, the proposed "preferred alternative" for addressing the enormous problems caused by mountaintop removal mining ignores the studies that quantify these problems. Furthermore, it proposes weakening existing environmental protections and allowing mountaintop removal and associated valley fills to continue at an accelerated rate. 1-5

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. Alternatives must be considered that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. I urge you to immediately amend the draft EIS accordingly.

Sincerely,
Richard Baskin
2 Roton Ave
Rowayton, CT 06853

Forwarded by David Rider/R3/USEPA/US on 01/23/2004 09:38 AM -----

Susan Bechtholt
<kaliel@peoplepc.com>
01/12/2004 10:01 PM
To: R3 Mountaintop@EPA
cc:
Subject: Limit the Destruction Caused By Mountaintop Removal Mining 1-9

Susan Bechtholt
5290 Banner Rd SE
Port Orchard, WA 98367

January 12, 2004

John Forren
US EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Forren:

5290 Banner Rd SE www.kalielsprairedogs.homestead.com/

Sincerely,

Susan Bechtholt

Forwarded by David Rider/R3/USEPA/US on 01/08/2004 09:59 AM -----

Lawrence Beckerle <lawrencebeckerle@yahoo.com> 01/06/2004 12:08 PM

To: R3 Mountaintop@EPA
cc:
Subject: Additional comments on EIS

January 6, 2004 comments on EIS
By Lawrence T. Beckerle
PO Box 118
Craigsville, WV 26205

Fatal flaws

EPA did not make proper use of data gathered by US Forest Service from Appalachian and Cumberland Mountain areas and formerly headquartered at Berea Kentucky. Information on this data was included in first comments I made (a total of 28 typed pages to EPA, 32+ pages to OSM) during the first comment period. (It may help you to remember my verbal commentary if I note here that I was the one who brought a watermelon to the hearing in Logan from a bond forfeited mountain top mine site that I reclaimed in Fayette County.) A consultant form Pennsylvania did call me once for more information on who then had the raw data collected in the last years of that study, but it seems no analysis or other use was made of this unique data. Note: It is the only consistent multi year collection of data from such a large area. Furthermore it the only data that can be used to sort out such multiple variables as the various effects of vary different regulations over time. The data were collected from about 1975 to about 1987. 3-3

Because the EIS does not consider how misguided regulations cause environmental problems, there is little to offer on how to solve the problems mentioned in the EIS. Furthermore those problems are therefore mistakenly blamed on mining activity. With out such distinctions important issues are left unresolved and people are left as confused as before about what to believe. Since both OSM and the West Virginia Department of Environmental Protection are reluctant to admit that their regulations are the root cause of problems, it is especially important that EPA take a more perceptive look at those issues.

The following examples are offered to help reviewers to better analyze the issues:

VALLEY FILLS

Configuration: Under current regulations no real option and certainly no encouragement exists to develop more effective or more visually pleasing shapes to valley fills. Surface shapes allowed for the mining industry do not even approach the variety of shapes used by the department of highways for valley fills when they build new roads/interstate systems.

Current regulations generally allow just two basic types of valley fills: chimney core drain and 80 % durable rock end dump valley fills. Both these designs allow dissolve solids to be flushed out of valley fills. Part of this flaw could be corrected with organic filters, but the regulations require the removal of trees and other surface organics before placement of fill material. OSM snuffed out the use of trees and shrubs for under drains. Now organic filters are not even allowed in the aerobic zones of a valley fill.

Part of this is due to the fact that regulators do not make a difference between consideration of the stability of the face of the valley fill from the material behind the face. While this may simplify things for regulators, it also has the effect of outlawing innovative technologies for improving water quality. It also outlaws fills that concentrate stability features at the most vulnerable area (generally the face) and use the rest of the valley fill to enhance other parameters. 13-3-2

By contrast to 80 % durable rock fills and chimney core drain fills, it has been shown to be possible to slow runoff in a valley fill and to increase the filtering effect.

As a third option a valley fill could be used to create cells or a kind of dam effect to improve water quality parameters. However the Dam Control Act may need some modification to allow use of designs that might be currently subject to its restrictive provisions, but which should be exempt to encourage new designs for improving water quality.

Among the concepts for which bureaucrats might use the Dam Control act as a roadblock are: Internal cells in a valley fill and perched water tables.

PREVENTION OF ACID MINE DRAINAGE

Three ingredients are required for acid mine drainage

to be produced: water, oxygen, and pyrite or similar material. Production of acid mine drainage is maximized when the pyretic material occurs in the water fluctuation zone. Thus there are two logical approaches to preventing production of acid mine drainage:
1.) Keep the pyretic material high and dry to keep water from getting to it.
2.) Put the pyretic material below the permanent water table to deny oxygen needed by the sulfur oxidizing bacteria
Where states regulatory agencies allow only the first approach (West Virginia) infiltration of rainwater is discouraged. Drainage structures resemble those used for highway construction and runoffs rates can be very high.
Where state agencies (Illinois) have preferred the second listed approach infiltration of rainwater is encouraged and drainage structures often resemble those used by farmers to reduce erosion and increase the productivity of their land. Runoff rates are lowered by such structures. It is possible to eliminate storm water runoff with such structures. The flood control benefits can be enormous. But where the emphasis is on the first approach such structures are not allowed.

Less well-known to state officials is that such structures increase the productivity of vegetation and the productivity of sulfur reducing bacteria, both of which help to reverse acid mine production. However for those that have studied effects of rice paddies that formerly occurred in South Carolina and/or the earthen cells used for commercially raising crayfish, this is old news.

For farmers interested in ground water recharge and otherwise retaining moisture to increase production of their land such structures are old news. Most also realize that the increased moisture through the winter months helps increase the freeze-thaw actions that reduce compaction and are thus an aid to increasing rooting depths for plants.

APPROXIMATE ORIGINAL CONTOUR

In my work to create topsoil material for bond forfeited surface mined land, I have learned the hard way that a 15% slope is the maximum safety limit for trucks to dump sawdust and other materials that we used to make a topsoil layer. (15 feet vertical fall in 100 horizontal distance = 15% slope.)
With my farming cooperators (David Williams and James Briggs) we soon learned that 25% is the maximum safety limit to operate a farm tractor along the contour of

19-3-2

the land.
25 % slope is the standard steepness for roofs on the average home. (The same slope when used by homebuilders to put a roof on a house is described as a pitch of 3 inches vertical fall for every 12 inches of horizontal distance, or as 3 in 12 or 3/12's)

Being able to safely operate equipment should be a concern of everyone who values the life of their fellow Christian. But some are not satisfied to see land put back as steep as the roof on a typical home, they strongly prefer very steep land (and call any one in the wrong who wishes to keep the steepness of the land within reasonable safety limits). In effect, they insist on very steep slopes and use judges and lawyers with no real experience in farming or land reclamation to mandate slopes very much in excess of 15% and are not even satisfied with slopes under 25% *. In court they have essentially argued for as much land as possible to be put back to 50% slopes. (Generally only bulldozers with new or nearly new tracks can safely operate on mined land with slopes between 36% and 50%.) The US Congress had enough sense to describe land over 20 degrees (36+ %) as steep slope mining and enacted provisions to discourage putting land back to slopes steeper than 36%. But in their haste to make mining and reclamation more difficult for coal companies, the radicals have ignored the intent of Congress and succeeded in getting Judge Haden to ignore its basic intent on limiting the steepness of the land after mining.

* Many of the same people complain when roads exceed 4 %. (For their safety the Department of Highways posts signs warning of steep grades whenever the slope of the road is 5 % or more.) And they want their yards to be flat enough to run a lawnmower, so why do they insist that rural landowners be stuck with slopes as steep as the roof on their houses? Where is the justice in that? Can they not see that they are supporting a double standard?
Some consider any reduction in height of a mountain as mountain top removal mining. (And with that interpretation a moratorium on mountaintop mining eventually becomes a moratorium on nearly all surface mining.) But the intent was that only mining that was returned to such flat slopes that it eliminated the mountaintop was to be called mountaintop removal mining. (But as we have all seen the first step to deception is changing the meaning of words and the use of words/phrases out of context.) The original mountain top mines were more than just flat. They actually sloped (usually at 3 to 5%) towards the middle of the former mountain, so that a depression was left where a mountain once stood.

19-3-2

Some say a picture is worth a thousand words. I wish I had pictures of trucks that rolled over when the operators tried to dump their loads on hills steeper than 15%. I do have pictures of the land we were able to reclaim. I'm including a mere two copies with this letter. (I have many more I would like to show you.)

The land shown in the pictures is more productive than what can be achieved by land with slopes over 15%. It is more resistant to erosion. It is more resistant to flash flood type runoff*. The very rich two-foot deep layer of topsoil we created is something that future generations will be able to use. The amount of carbon sequestration that we achieve with this project is higher (on a per acre basis) than all other projects that I have heard about.

I am reminded of the biblical exhortations to lower the mountains, raise the valleys, and praise the Lord.

* On gentle sloping lands (be it mined land or other high and dry lands) it is possible to build enough absorption terraces and similar structures that catch and hold flash flood style runoff so that flooding is prevented. But it seems that none of the radicals are interested in such proposals. It seems they'd rather see a continuation of flooding so they can exploit the misery of flood victims to advance their political agendas.

For a long time the West Virginia Department of Environmental Protection (and its predecessors) used a fifty-foot rule to judge the return to approximate original contour. This standard had the advantage of being simple and where the contour intervals on topographic maps of several counties is forty feet, a fifty foot rule was close to the mappings standards used by the US. Geological Survey. However, one problem is that fifty feet can be a lot or a little depending on what context it is used in. Taken out of context, that rule caused plenty of confusion.

(Due to a number of problems the 50-foot rule was meant to be more of a guide. Since it wasn't always "strictly enforced", some thought that DEP had broken the law by not enforcing this rule.
But height was not intended by Congress to be the measure of approximate original contour. The concern voiced by Congressmen from farming states makes that clear. The emphasis from those Congressmen was to restore the agricultural productivity of the land. To do that the land must be made at least as flat as it was before mining. Congress set 50% as the maximum slope for post mining land. Since most of the land (80 to 90% in some) in many counties is in excess of

13-3-2

50%, it is not possible to return the land to its original heights. Which further emphasizes that Congress was more interested in returning land to usable slopes, which generally should be at least as flat as what occurred before mining.)

The 50-foot standard was also wrong in that it could result in land that was much steeper than what occurred before mining or it could result in land that was much flatter. What would have made more sense are requirements based on percent slope such as:

0 to 15% should be at least as much of the land is in this slope category as occurred before mining.
15 to 25 % should be approximately as much land in this slope category as occurred before mining.
25 to 36 % the amount of land in this category after mining should not exceed what occurred before mining.
37 to 50% the amount of land in this category after mining should not exceed what occurred before mining.
The provisions enacted by the US Congress showed they had a special concern about land that might be graded to slopes greater than 37 %. (20 degrees is between 36 and 37%)
Over 50%. In general Congress prohibited a return of land to slopes greater than 50%, even though a significant amount of land in some steep mountainous counties ranges from 50 to 80 %.

Other states have been using percent slope classifications as a way to regulate their mining industries since and some even before the passage of SMCRA (the Surface Mining Conservation and Reclamation act. It seems that West Virginia needs to adopt a similar standard. A possible barrier in West Virginia to passing such a standard is the confusion and legal mess caused by Judge Haden's decisions. Since he is a federal judge, West Virginia is now in some ways as restricted on passing laws with regards to mining, as it is restricted on passing laws that limit abortion. The consent degree entered into by those who file the lawsuit and DEP also restricts West Virginia's ability to fix things. In these cases, consent degrees become just another way to deny our right to vote on these issues. Are you not concerned about this injustice?

To arrive at some of his decisions Judge Haden had to not only ignore the intent of the US Congress, he had to change a few key definitions, for example:

Waste rock is a term normally used for rock left after processing to extract a mineral. Its economic value is gone. It can be in a fairly dry form such as rock that has been leached to extract gold. It can be in slurry form that is inherently unstable, such as

13-3-2

slurry from a coal preparation plant. Slurry material is inherently unstable. The materials dredged from rivers and canals are inherently unstable, so the US Congress included dredging material in its provisions on waste rock.

Fill rock is normally used for rock that is used in a fill. People untrained in construction or mining will often make fills on their properties. Many times they will copy what they have seen in construction or mining. Sometimes they take shortcuts and end up with problems. A common short cut is to skip doing a durability test on the rock they plan to use in a fill, so that it is no longer select fill as is used in the mining industry. It should also be noted that a valley does not contain the following materials:
No acid producing material
No gob
no slurry
no fly ash
no mud is disposed of in valley fill

Judge Haden's decision on mountaintop mining attempted to put a number of untruths into court made law. How the decision of the Appeals Court affect this I'm not entirely sure, but I would ask that EPA make note of their decision so that those untruths are not further advanced.

13-3-2

Comments on EIS (with additional pages since summer 03 submission of first page)
Page 1
By Lawrence T. Beckerle
PO Box 118,
Craigsville, WV 26205

Could better discern what the effects of valley fill were if one knew the percent slope of the land above it and could statistically separate out the effect of steep slopes from the size of valley fills. The problems being attributed to valley fills may be due to the steep slopes above those valley fills. And it is very possible that larger valley fill that make possible a reduction of steepness of slope on the land above the valley fill will have less runoff than a small valley fill with steeper land above it. However without information on the slope of the land, it will be hard for scientist to make these determinations. (The irony is that Illinois, which is much flatter than West Virginia keeps records on steepness of slopes, and West Virginia ignores the issue.)

Slope information needs to be cataloged here in the mountains just as well

17-1-2

Regulations could be improved by a consideration for steepness. For example: to control erosion, one needs to have more vegetation (or other erosion control measures) on a 40% slope than a 4% slope (grade). But for revegetation purposes DEP treats all land the same, even that which is ten times as steep as the land preferred by farmers and most homeowners. If DEP had logical vegetation requirements for different grades of land this would help quail, which prefer a patchwork pattern of vegetation. (Since plant species vary in their sensitivity to competition, a greater diversity of plant life will be permitted by this change.)
For example:
The typical grade of a wet meadow (and some forest wetlands) is 1%. Anything over 2% generally becomes a mound or relatively dry island. There could be a category for land with an overall grade under 2%, so the public could know whether enough wet weather pools, wet meadows and wet forests are being created to sustain wildlife that depend on these habitats.
The typical grade for a highway is 4% or less. (Note that DOH puts up signs warning of a steep grade ahead for highways that have a 5% or greater grade.) There could be a category for land no steeper than the typical highway.
The safety limit for dumping a load from a truck is 15%. There could be a category for regarded mined land that is safe enough to operate a dump truck.
16.6% used to be the standard for the pitch of a roof on mobile homes (also described as 2" fall per 12").
Now the standard is 20%. (2 ½" fall per 12")
The safety limit for operating a farm tractor along the contour is 25%. There could be a category for land safe enough to operate a farm tractor (along the contour and thus aid the use of soil conservation practices). (25% is the standard pitch for a roof on a house, (which a contractor would refer to as 3/12 or 3" fall per 12").
Finally there could be a category for land too steep to operate to operate a farm tractor along the contour and is steeper than the roof on the average American's house

However rather than match cover type with the steepness as one would do for a play ground or roof on a house, DEP insists on the same kind of vegetative cover for all slopes. By enforcing a uniformly unimaginative cover types, DEP further impoverishes the landscape of West Virginia, limits game birds, and reduces the variety of songbirds and butterflies.

Another variable is that valley fills of different designs will have different runoff rates.
The simplest example being the a valley fill of the

17-1-2

same size and shape with 80% durable rock will have a faster discharge of water than a valley fill f the same size and shape with 60% durable rock.
If the percent of rock is the same for two valley fills, but one has all the durable rock at the toe of the fill instead of through out, it should be both more stable and have slower discharge.
If rock and size are the same, but one has reversed slope terraces and the other doesn't, the first will have slower runoff than the second.

A common public need across the West Virginia is a need for flood control,
Yet the public use provision has never been used to address extra steps for reducing floods
Taking steps to reduce flooding would have a beneficial economic impact, yet the variance for economic use has never been approved for steps to reduce flooding
For example: the pure economics of crayfish farming and the economic need for a crayfish farm in Southern West Virginia would be hard to justify to the satisfaction of regulatory agencies so long as they only consider the price of crayfish in to their calculations. However if they would also consider the benefits that such a farm would contribute to the reduction of losses due to flooding then their calculations would be more accurate and fair to all.

17-1-2

In its interim regulations OSM had a rule against any depressions bigger than a square meter. Following that that time period. the Drainage Handbook became the standard in West Virginia. To this day the Drainage handbook still has a rule against depressions deeper than two tens of a foot.. As a consequence of the earlier OSM rule and the current rule there are very few wetlands on mined lands and those that do occur are of very poor quality. Another part of the reason that there are so few wetlands is that: 1.) the overall emphasis of the Drainage Handbook is to channel water off the mined site and 2.) there has been a regulatory agency tendency to consider every water retaining structure to be an impoundment so that even sediment ditches are required to be removed after mining. So the thought on the operational side has been why build something constructive, if you're going to have to destroy it later.

As a consequence vernal pools and ephemeral pools are rare.
Wet meadows are rare.
Wet forests are rare.
Absorption terraces are rare.
Zero runoff bench and berm systems are rare.
And I do no know of any crayfish farms on mined land in West Virginia. (an important food for wild turkey)

All of these would result in more "organic energy" for aquatic organisms in the steams below the mining area.

Forest Ecology page 158 rainfall interception
Page 167 effect of wind
Page 260 Decreasing order of water consumption are: wet meadows, open water. grasslands, vegetable crops, bare soil
"Thus in the Lake States, the presence of northern white cedar in wet sites is indicative of seepage conditions where the water table is moving rapidly and relatively high in oxygen. With completely stagnant and oxygen-poor water, only black spruce and associated ericaceous species can grow."
Channels from decaying taproots page 269
Infiltration rates of 250mm per hour
293 In sand plains of Lake States , organic matter provides the major source of colloids for soil nutrition."
Look for page on allelopathic effects on N-fixation and presence of legumes and mycorrhizal fungi
1000mm per hour is that 50 Inches per hour?

SEVEN POINT PROGRAM FOR ENVIROMENTAL PROTECTION AND MORE JOBS IN WEST VIRGINIA
Eliminating unnecessary roadblocks and sowing the seeds for a more vibrant economy that will benefit everyone

By Lawrence T. Beckerle
LEGALIZE creating more types of WETLANDS, for example:

1.) Loggers are told by the Department of Forestry (DOF) that in order to comply with BMP's (Best Management Practices) they must out slope all their skid roads, so as to eliminate pools of water. These pools are needed by frogs and salamanders to produce offspring. Their young come off a spring or other early spring wet area, so they truly are offspring. Turkey hens lead their baby chicks to these pools to drink and feed on insects. So even though these pools dry up in summer, they are important to wildlife.
Pools and wetlands help water to soak into the land, which aids the growth of trees and other plants in the area. Productive lands generate more jobs than poverty lands.
2.) While cattail wetlands are allowed on strip mines, most of the other types are not allowed. For example: In the Drainage Handbook for Surface Mining depressions deeper than two tenths of a foot (2.4 inches) are prohibited for diversions and constructed drainways. Legalizing all types of wetlands from accidentally created tadpole pools, crayfish flats, to wild rice paddies would increase wildlife diversity.

17-1-2

Water caught by these wetlands would help reduce flooding.

LEGALIZE more FLOOD CONTROL
There are number of ways to configure mine land to reduce the severity of flooding during heavy rains, but West Virginia only allows mountaintop removal mining and approximate original contour configurations. Other concepts are not allowed. There are a number of structures that have been proven to reduce flooding, but it is not legal to build them on mined land in West Virginia. (For example: Absorption terraces, zero runoff bench and berm systems.)

17-1-2

LEGALIZE the use of NATIVE PLANTS
1.) The West Virginia Department of Highways (DOH) lists only non-native plants for stabilizing cut slopes and fill areas on road right-of-ways. Wildflowers plantings you sometimes see are an exception to rules to use only non-native plants.
2.) West Virginia Black Cherry trees are valuable for songbirds and game animals. Black Cherry lumber currently brings more money than Black Walnut. If a coal operator or the landowner plants Black Cherry on mined land without the approval of The West Virginia *Department of the Environmental Protection (DEP)*, it is considered a violation of the law. It should NEVER be a violation of the law to plant native wildflowers, shrubs and trees.

LEGALIZE more FISH AND WILDLIFE HABITAT, for example:
1.) Coal operators are not currently permitted to build raceways for trout and other fish, because these structures are not on DEP's list of approved structures. Operators are not allowed to create brush piles for rabbits to hide or birds to nest.
2.) Loggers are not allowed to put treetops or other wood pieces into streams to create pools favorable to trout and other animals. Regulators do not recognize that the reduction of the movement of wood from the forest to the sea is having an adverse effect on aquatic life forms that are necessary to the survival of freshwater fish and ocean fish such as tuna fish.

19-3-2

BIRD FRIENDLY LAND USES

Some Land Uses Helpful to the Re-establishment of Morning Dove, Bobwhite Quail, Prairie Chicken, Ruffed Grouse, Turkey
by Lawrence T. Beckerle

Copyright 2001, 2002
Adjunct Professor, Nicholas County Campus of Glenville State College

Why should you care about these birds? Because as nature's hydroseeders they are more effective in establishing most fruit bearing type herbs, forbs, woody shrubs and trees than any mechanical hydroseeder. These plantings also benefit songbirds.

BOBWHITE QUAIL AND ASSOCIATED SONGBIRD HABITAT RESTORATION (A land use category for promoting native wildlife plants that have been reduced by urban sprawl and invasive non-native plants.

NATIVE MEADOW NURSERY FARMS for plants of economic or restoration value (especially WV ecotypes)
a.) Native grass propagation and/or seed harvesting fields
b.) Native nitrogen fixing plant propagation and seed harvesting fields
c.) Native forb, herb, or other wildflower plant propagation and seed harvesting fields

NATURAL HABITAT BERRY FIELDS >>>>>>>>>. go back to native trees, shrubs and vines for rural America for notes
a.) Silver Buffaloberry, Blackberry, Blackhaw Viburnum or perhaps bayberry
b.) Huckleberry and/or blueberry, plus strawberry
c.) Aronia (Chokeberry), elderberry, aralia spp., red mulberry, or perhaps spicebush and/or American mountain ash

19-3-5

NATURAL HABITAT TREE/SHRUB nut/fruit ORCHARD
Hazelnut, nut pine, persimmon, walnut or butternut.. with low ground cover to aid harvesting

Plum, crabapple ...
NATURAL HABITAT MEDICINAL SAVANNA
RED ELM, plus Black Cherry, Cucumbertree, Elderberry, Blackhaw Viburnum Use ground cover that aids beneficial insects
For neutral to alkaline soils: RED ELM, Bur oak, (Hackberry, Persimmon, Yellowwood), butternut, yellow chestnut oak
Native medicinal herbs or wild native foods
NATURALIZING ORCHARDS FOR UNCOMMON TO RARE NATIVE PLANTS
Especially those that can survive a hydroseeder and thus be used in future land reclamation projects
Uncommon to rare native West Virginia plants (varieties, ecotypes and species (use crayfish pools to grow wet meadow plants
Nutrush (Scleria triglomerata) and four sided spikerush (Eleeocharus quadrangulata) would need a crawdad (crayfish) type pool to produce seed

ABSORPTION FIELDS for
Enhancing ground water recharge
To reduce need for sediment ponds and/or increase their efficiency.
To create moist pockets on slopes with less than 2% grade to favor plants like Pennsylvania smartweed, which is a highly preferred winter food for Bobwhite Quail. Several hollies, dogwoods, nutsedge, and even chufa, sunroot
To create the kind of wetlands being missed by upland birds, especially
Vernal and Ephemeral pools that favor grasses and forbs with grain type seed for a true wetland meadow effect. For more design information on absorption, see original S-113-85 permit.

Valley Fill STREAM ELEVATION PROJECTS
A.) To make possible above land uses as well as other productive uses of disturbed land. As steepness of land increases, erosion control must take precedence over all other environmental and management concerns. It is hoped that these few examples will help interested parties to see the advantages to our state's future in reducing the overall steepness of mining land in West Virginia.
B.) Elevated streams can help create oxygen rich water to counteract the adverse effects of drainage from septic tanks and sewage treatment plants. Even without increased oxygen, mine water can act as a counter balance to sewage type effluents, thus making the fish that live in those streams safer to eat.

-Get bigger plants by reducing amounts of seed used in sowing. Bigger plants result in stronger, deeper taproots, and more seed for birds.
SOME SLOPE LIMITATIONS FOR HABITAT RESTORATION PROJECTS
for Morning Dove, Bobwhite Quail, Ruffed Grouse, Prairie Chicken, and Turkey
by Lawrence T.Beckerle

Copyright 2001
Adjunct Professor, Summersville Campus of Glenville State College

0-2% Slopes are great for vegetative water filters, reeds, sedges, sunroot, duck potato, and other moisture loving plants. Can lead to mud flats, soils that are easily probed for food. Nitrogen fixing plants favor earthworms. Both conditions favor American Woodcock.
5% is a steep grade for a highway. DOH posts warnings, constructs escape ramps, reduces speed limits, especially for trucks.

19-3-5

10% (+/- 2%) Limit for leaving open bare ground for dove feeding and loafing, and volunteering of early successional annuals.
limit for most productive farmland
cover crop and/or past crop residue left on surface to retard erosion until next crop planted.

15% maximum safety limit for trucks to dump topsoil, topsoil substitutes, and soil amendments.
The "sawdust project" and the stocking ofBobwhite Quail would never have taken place if the mined land had been steeper than 15 percent.
Limit for most productive types of cover that will allow baby chicks to feed on the ground and to catch insects.
Limit for the type of plant cover that will best encourage the growth of trees and shrubs.

25% maximum safety limit for harrowing, disking, planting, drilling along the contour to retard erosion.
mechanical planting of trees must be done along contour to retard erosion
limit for band fertilizer placement along the contour
limit for most grain harvesting combines and most other seed harvesting equipment.

36% (plus a fraction) equals 20 degrees, the legal definition of steep slope mining.
limit for most tree shearers and whole tree harvesters
limit for revegetating land without use of some kind of artificial nonliving mulch: hay, straw, paper or wood fiber.

40% approximate safety limit for "bush hogging" (up and down hills) for specially equipped tractors. So the only way to control nonnative invasive plants is through control burns and/or use of herbicides

Slopes at 40% and above almost the exclusive domain of hydroseeding, which excludes plants whose seed can't survive a hydroseeder. Many more plants can't survive the intense grass competition necessary at these steep slopes.

50% maximum safety limit for dozer to grade most fill materials.
70-80% approximate original contour in much, even most of the mining areas in Boone, Logan, and other counties in Southern West Virginia.

SUMMARY OF SOME NEEDED CHANGES IN PRIORITIES on slope issues TO FAVOR NATIVE FLORA AND FAUNA

19-3-5

0-2% just a few plants needed to act as starters
2-7% handle like row crop agriculture
allow bare ground if disked along contour so ridges formed by disk catch water, preventing runoff

Under 15% slope: Percent cover should be limited to less than 30% and perennial grasses & forage legumes should not be planted, so as to encourage native forbs, herbs and other wildflowers. In general only annuals with at least one reseeding annual should be required for bond release. Areas with non-natives too aggressive to allow native forbs and/or herbs to prosper should be herbicide or opened up with a disc before a bond request is granted.

15 to 25% slope: Percent cover requirements should be from 30 to 50%. A perennial forb should be included., but one that is short enough or low enough on aggression to allow plants such as rye to reseed from one year to the next. Grain type foods provide essential winter feeding areas for Bobwhite Quail, Ruffed Grouse, Prairie Chicken, and Turkey.

Over 25% slope: Though it becomes necessary to include a perennial grass for erosion control, such grasses in total should not exceed 50% of the stand. An exception might be made when the average slope of the land exceeds 40%, but even then forbs should be at least 25% of the stand. Because of the compaction that occurs with "tracking in" this practice should limited to slopes in excess of 36%. Ground cover should be from 50 to 75% for erosion control and still allow the growth of Solomon seal and False Solomon Seal
Over 40% slope 90% ground coves should be reserved for slopes over 40%

19-3-5

WILDLIFE NEED A MOSAIC OF HABITAT TYPES TO PROSPER

The following excerpts from several of my papers help to illustrate ways to create the needed habitat diversity. Current regulations for the mining industry effectively prohibit most of these techniques hindering effects to restore butterflies, songbirds, game birds, and native plants.

Native Wildlife Seed Mixes (a few non-native nurse/cover crops) for Road Cuts, Fills, and Right-of-Way Construction (for electricity, gas, water)by Lawrence T. Beckerle
Copyrights 2000, 2001, 2002, 2003
Introduction:
The primary advantage of disturbed land in an ecosystem is to allow pioneering plants to provide more nutritious forage, seed and/or fruit for animals.

7-2-5

Where plants provide nutritious food that supports an abundance of insect life, and also enable young birds (chicks & young poults) to feed on those insects, it is referred to as brood habitat. Brood habitat is essential for young birds to become adults. For example: Bobwhite quail chicks live almost exclusively on insects (Beetles make up almost 50% of their diet, particularly ground beetles, leaf beetles and weevils...). Turkey chicks depend more on grasshoppers. Good brood habitat will have lots of beetles, grasshoppers, crickets; plus a tall grain, bramble, or other vertical cover that interferes with the ability of avian predators to swoop down for a kill. Some grasses inhibit birds from feeding on insects by hindering their ability to walk, run, & hide. 2" tall chicks of Bobwhite quail (which weight less than ounce) need these breaks to survive. The chicks of Ruffed Grouse are about twice the size of a bumblebee with long legs. So as a rule of thumb: If a horse won't eat it and a bumblebee can't walk around or fly though it, it's not suitable for brood habitat.
And if the plants you use are too aggressive for asparagus, strawberries, rhubarb, sunflowers and/or turnips to grow in the first years after planting, it's not good brood habitat

Nurse crops prevent germination of those weeds that require full sunlight and retard the growth of those weeds that prefer full sunlight. They protect slow growing, often-delicate seedlings of perennials from drying winds and other environmental stresses. Black Locust is used as a nurse crop for Black Walnut and other hardwoods. Young locust helps to protect other seedlings from deer. It produces light shade that thins out even more as insects eat the leaves. It plays host to bacteria that fix nitrogen in its roots.
Its leaves readily decay, making nitrogen plus other nutrients available to microorganisms and plants. Sowing red clover in a wheat field in February is both an example of frost seeding and using fall sown wheat as a nurse crop. For a mid March sowing there may not be enough freeze-thaw action left to adequately bury seed, so farmers use livestock to walk in the seed. Sowing rye in a standing crop of soybeans near harvest time (just before 50% of the leaves fall) is an example of relay cropping. As leaves of the soybeans fall, the surface of the soil retains more moisture and the seed of rye begin to germinate. By the time the soybeans are harvested, the rye is fairly well established, so there is less chance of erosion with relay cropping. As a relay race can involve more than two runners, so relay cropping can involve the succession of more than two crops. When the same crops used for nurse cropping and/or relay cropping are mainly used to increase organic material, particularly if they are plowed down prior to the next

7-2-5

crop, they are referred to as green manure crops. A cover crop is any crop used to hold the soil in place between other uses. For example: White clover sown in an apple orchard is a cover crop. As is rye sown on a topsoil stockpile. Fall sown rye that is later killed by herbicide just prior to the no-till planting of corn (in the following spring) is a cover crop.

It's far cheaper to sow grasses such as Indian grass into an appropriate nurse crop species at the appropriate time, for example: mid May into a pure stand of Crimson clover that was established the previous August or September. Since several warm season natives do not germinate until soil temperatures reach 70 degrees, it maybe more practical to sow those seeds earlier into a Crimson clover stand. Dwarf Essex rape makes a showy yellow in April. Since it gets so much taller, a top sowing of a warm season species must be done in about February. This would work for Switchgrass and others with semi-dormant late spring germinating seeds (requiring soil temperatures above 70 degrees). Cool season natives can be established along with Crimson in Aug-Sept, such as Mountain ricegrass (Oryzopsis species)
Some seeds are intermediate in size and free flowing and so mix in well with clover seed for broadcast sowing and use in a typical no-till drill. Sometimes called pasture renovation drills, they are available from the WV Soil Conservation districts for $25 per day rental (plus a few dollars per acre). At least 60 of the grasses native to WV fit this category. Deertongue, Switchgrass, prairie dropseed (officially native to Ohio and Pennsylvania, but not WV), mountain rice.....
Some seeds are so large that they are easier to plant using a small grain type drill, such as Eastern gamagrass, American Beakgrain, Paspalum species, and peanut grass.
The hydroseeding fad has precluded the use of many native plants, especially seeds that split easily after they have been wet for awhile, such as the wild beans that are related to our garden beans.
Hydroseeding establishes a bias against seeds that cannot tolerate the salt of fertilizer and other conditions of the hydroseeder. Seeds that evolved to pass through the digestive system of animals generally do well being passed through a hydroseeder. Other seeds have evolved to be wind blown, to float on rainwater (or to be carried off by heavy rains), to twist themselves into the ground, to be carried off by ants, and/or to be stored by rodents. Some seeds that rely on water for transport will survive a hydroseeder. Most of the rest will not.
This is only one of the several reasons hydroseeders are less than adequate for establishing most plants.

19-3-5

Another problem with hydroseeders is that they kill much (often all of) the inoculant needed by nitrogen fixing plants. These plants help to cut out the application of nitrogen fertilizer, which encourages weeds and pollutes streams. Adding gypsum loosens soils and aids nitrogen-fixing plants. A sulfur, potassium, magnesium fertilizer (sulfo-po-mag) (0-0-22-11-22) is also useful.
Ornamental native grasses: "Yellow " and Scribner's Panic grass, Prairie dropseed, yellow striped Crinkled Hairgrass. Plumegrass (Erianthus) and wedge grass (Sphenopholis) have also been used ornamentally. Holy grass has been collected to the point of eliminating wild populations of this species. Beard grass has some potential as an ornamental.
Members of the Sedge family are often called grasses. Some of the more interesting species in this family include Pennsylvania sedge (sold and planted by plugs) for cut slopes and other dry barren areas (maximum height is 4 to 6 inches). Cotton grass, Wool Grass, are used ornamentally on moist to wet soils. Nutrush (annual or perennial) will grow on dry or wet soils.2-3 mm-bony seed
A number of native wildflowers are often used like grasses, such as: Blue-eyed grass (4-20"), Yellow stargrass (6-12"), spring beauty (4-12"), Miami Mist, Virginia Meadowbeauty (12-18"). On dryer sites you can find: Early spiderwort, violets, violet wood sorrel (4-8"), pussytoes, star chickweed, slender dayflower, and geranium maculatum. On the driest of mowed areas you can find orange-grass, orange puccoon (2-20") and Birdsfoot violet (2-6"). Prairie zinnia 6" is native to the Great Plains & is used in lawns
Please remember that some grasses (Tall Fescue and Smooth Brome) are highly invasive and put allelopathic compounds in the soil, so these can interfere with the best laid plans. Often have to establish a resistant annual until those chemicals dissipate.
Lawrence T. Beckerle

PO Box 118 Craigsville, WV
26205

Many of the sites I reclaim are small (less than 2 acres) and in rather inaccessible locations, as a result I often use my Bronco II both as a four wheeler and farm tractor. However on those occasions when I can bring in a limestone spreading truck the following procedure is used.
Limestone trucks are generally limited to spreading lime when the land is fairly dry, which in West Virginia occurs through the summer months into fall. Limestone trucks are also used to spread fertilizer when the rate of fertilizer used is around 300 pounds per acre or above. At limestone plants and fertilizer plants the operators are able to mix in seed when they

19-3-5

load the trucks. Rye wheat, oats, buckwheat, pearlmillet, Dove proso millet, German millet, browntop millet are among the seeds that are commonly mixed in this way. The cost is minimal for adding seed at this time. For example: a fifteen-ton load of dolomitic lime at $40 per ton would cost $600. If 100 pounds of rye is mixed in, they would charge $22 for the rye. If spreading at the common rate of 3 tons of lime per acre, rye is sown at the rate of 20 pounds per acre, which is enough in most cases as a quick cover and as a nurse crop

If the lime and/or fertilizer are to be disked in (as they should be for maximum effectiveness), a higher rate of seed is used. It's cheaper to increase the amount of these rather inexpensive seed, then to have to follow up with applying these seeds at a later time

The same technique can be used with the (three point hitch) bulk fertilizer spreaders that farmers use on their farm tractors, if one has the set up (or the hand labor) to get an even mix of seed and lime or fertilizer. If the farmer has either a row crop planter or a small grain drill, he will use these on newly plowed ground to plant seed and apply fertilizer. If he is planting into a field that isn't plowed, he will use a pasture renovation drill (no-till drill) to plant the seed. (Or he could top sow the seed by grazing down the field, sowing seed and then lightly disking. Or he could sow in February for some small seeds, which freezing and thawing will then work into the soil.) If he were trying to establish a fluffy seeded species, he would generally try to rent a "warm season grassland drill".

Good used row crop planters and small grain drills can often be purchased at farm auctions for less than $1,000. Sometimes they only bring $100 at a sale. Pasture renovation drills can be rented from district headquarters of the he West Virginia Conservation Agency for $25 per day and a few dollars per acre. A few have grassland drills for rent. $5.000 to $20,000 is the typical purchase price range for "warm season grassland drills".

To someone not familiar with cost effective grassland farming the above may seen rather confusing, so here's an example that might help:

A contractor is due to finish a job by August 1st, so the lime truck arrives on that day to spread agricultural limestone. A week later the inspector makes the contractor regrade some of the area because the finish grade isn't up to specifications.

Meanwhile someone forgot to schedule the no-till drill, and so area farmers have it tied up for the next two weeks. Plus the DEP inspector just showed up to complain about the regarded area that hasn't been sowed with seed. So Johnny on the spot brings

19-3-5

out his special broadcast seeder. He sows seed larger than 2mm (taking about one hour to sow two acres). Then uses a flexi-tine (drag) harrow to cover the seed. (Four wheelers, small tractors, cars, trucks, dozers, and so on can pull these harrows.) After this he sows seed that is smaller than 1.5mm on top of the freshly loosen soil.

A week later someone realizes that the contract also called for 500 pounds of gypsum per acre and 100 pounds of 6-24-24 per acre. So a farm tractor or four-wheeler is brought to the site to spread these. But the soil is very dry and no one has told him if anything was sown besides the rye. So to be on the safe side he mixes in Crimson clover (that has freshly attached rhizobium inoculant) and some turnip seed or rapeseed. He hooks the drag harrow to the hitch on the fertilizer spreader. As he spreads the gypsum and other fertilizer, the seed is also sown and covered in the same trip. A pick up truck with an electric fertilizer spreader can also spread seed and fertilizer and cover in one pass by pulling a drag harrow.

Everything is fine until someone notices that one of the wildflowers used isn't supposed to be sown in August or September. It happens to be one of those species that does best when sown in late winter or early spring. Since its seed is no bigger than the seed of red clover (and since Crimson clover and the other species sown in August permit the introduction of other plants), a decision is made to sow this native wildflower in mid to late February and let Mother Nature work the seed into the soil (by way of freeze thaw action) as it has done for thousands of years. But it's hard for many folks to understand "frost seeding" or why it is far better to sow some wildflower seeds on snow (preferably melting snow) in February than to wait until spring.

Partridge pea is an example of a seed that is too big to work into the soil by freeze thaw alone. So it should be planted, preferably in March for maximum growth and flowering. (Note: this annual makes acceptable growth if planted as late as June 30th).

To save money and time on seeds that prefer to germinate during the February-March thaws, farmers will sow them in March and then use cattle to walk the seeds into the soil. This process can be simulated by a number of other techniques.

Crimson clover is at the size (about 2mm long) where it can benefit from covering by a drag harrow.

Instead of using a flexi-tine drag harrow, some people prefer to use a spike tooth harrow (that attaches to the three point hitch on a farm tractor). They are convenient and cost only about $300. However on soils where they would cover Crimson clover too deeply, seed the size of Crimson clover should be sown on top after harrowing is finished.

19-3-5

The above examples for establishing wildflowers also help to illustrate the convenience of other seed establishment times. Many warm season perennials that are adapted to very droughty soils prefer the February-March sowing and planting period. The late summer and early fall planting period is preferred by winter annuals, many biennials, and plants whose seeds are very susceptible to drying out and/or have a rather exact cold dormancy. For seeds that are best sown as soon as they are collected and for species that need to germinate around the end of summer in order to make enough growth before winter sets in, the time period of August 1st to October 15th must be considered.

The name generally used for this time period is "the fall planting season", even though part of this time period is officially late summer and part is early fall. Crimson clover is normally sown during this time. It is easy to establish, relatively cheap, non-aggressive, can be used as a nurse crop, and so success and failures with it can help growers understand what they need to do to establish plants with somewhat similar sowing requirements. I generally sow Crimson clover at the rate of ten to fifteen pounds per acre with four ounces of turnip seed (or rapeseed) for a bright yellow contrast to the crimson color. But as can be seen in the below list, there are native flowers that can create this color combination.

West Virginia ecotypes should be used when ever possible, so information on collection is provided. Seed from initial wildflower plantings can then be harvested, increasing the efficiency of future wildflower plantings. While generally emphasizing the showiest of wildflowers, it is also possible to use plantings to propagate natives especially useful for stabilization of road cuts, banks, and fills. For example: The ground hugging Trailing bushclover (L. procumbens) and Creeping bushclover (L. repens) could be a part of plantings on dry soil. Their seeds are about 2mm long. Capsules are about 3 mm long. In October the area could be harvested with a wild seed harvester or the area could be mowed and the seed screened out from the cuttings. Screening for seed from lawnmower type cuttings works best for the heavier seeds that are generally free flowing.

Note: Some comments may seem to be redundant, for example: Slope limitations are described in a number of ways to help explain the concept and to help explain how it might be applied. The comments dated January 5, 2004 put the essential slope classifications in what is probably the simplest form for most people.

19-3-5

For Bobwhite quail: seeds need to fall on bare ground for these and several other ground feeding birds to be able to find enough food. Blackberry thickets (where old canes cover the ground instead of grass) are needed to provide these birds with adequate protection from nighttime predators.

7-2-5

Note of request for help with WV DEP on this issue: If DEP were to "strongly recommend" native ground covers, a number of benefits could result. For example: The native Paspalum grasses can grow in any disturbed soil that the non-native ryegasses can grow in. These grasses grow in many lawns across the state of West Virginia. Several of the native Paspalums make good lawn grasses, produce palatable forage and produce nutritious seeds (that are nearly as nutritious as oats).

If WV native Paspalum grasses were "strongly recommended" by DEP, then homeowners would have an incentive to screen their fall lawn cuttings for Paspalum seed and sell it to the coal companies. While supplies of native Paspalum seed would initially be limited (DEP would have to make allowances for that), the long-term result would be to help create a new industry in West Virginia.

Northern dropseed, sand dropseed, and tall dropseed are also valuable for wildlife, are very compatible with the growing of trees, and are quite drought tolerant. DEP should encourage use of these grasses as well.

Among the nitrogen fixing ground covers, DEP should also encourage the use of Butterfly pea, Spurred butterfly pea, bundleflower, milk pea, partridge pea, prairie acacia (the only thorn less acacia native to the United States), sensitive--briar, small wild bean, trailing wild bean, and other useful native nitrogen fixing plants.

Among the quick cover plants dove weed (Croton species) and similar natives should be "strongly recommended".

19-3-5

Since DEP rules and recommendations often sets standards in the market place as to what is produced and sold, it is imperative that DEP be more responsible in what it demands in the way of revegetation plans.

For example: By creating a market demand for European black alder, DEP helps to insure that European black alder will be planted on other lands in West Virginia. The West Virginia state tree nursery produces only what it knows it can sell. Since mining companies cannot readily use the vast majority of native trees and shrubs, the state tree nursery cannot justify producing seedlings of most native trees and shrubs. Thus to a large extent DEP determines what

trees and shrubs are planted across the state of West Virginia. 19-3-5

Comments on EIS
By Lawrence T. Beckerle
PO Box 118,
Craigsville, WV 26205

Could better discern what the effects of valley fill were if one knew the percent slope of the land above it and could statistically separate out the effect of steep slopes from the size of valley fills. The problems being attributed to valley fills may be due to the step slopes above those valley fills. And it is very possible that larger valley fill that make possible a reduction of steepness of slope on the land above the valley fill will have less runoff than a small valley fill with steeper land above it. However without information on the slope of the land, it will be hard for scientist to make these determinations. (The irony is that Illinois, which is much flatter than West Virginia keeps records on steepness of slopes, and West Virginia ignores the issue.)

Slope information needs to be cataloged here in the mountains just as well

Regulations could be improved by a consideration for steepness. For example: to control erosion, one needs to have more vegetation (or other erosion control measures) on a 40% slope than a 4% slope (grade). But for revegetation purposes DEP treats all land the same, even that which is ten times as steep as the land preferred by farmers and most homeowners. If DEP had logical vegetation requirements for different grades of land this would help quail, which prefer a patchwork pattern of vegetation. (Since plant species vary in their sensitivity to competition, a greater diversity of plant life will be permitted by this change.)

For example:

The typical grade of a wet meadow (and some forest wetlands) is 1%. Anything over 2% generally becomes a mound or relatively dry island. There could be a category for land with an overall grade under 2%, so the public could know whether enough wet weather pools, wet meadows and wet forests are being created to sustain wildlife that depend on these habitats.

The typical grade for a highway is 4% or less. (Note that DOH puts up signs warning of a steep grade ahead for highways that have a 5% or greater grade.) There could be a category for land no steeper than the typical highway.

The safety limit for dumping a load from a truck is 15%. There could be a category for regarded mined land that is safe enough to operate a dump truck. 16.6% used to be the standard for the pitch of a roof on mobile homes (also described as 2" fall per 12"). Now the standard is 20%. (2 ½" fall per 12")

The safety limit for operating a farm tractor along the contour is 25%. There could be a category for land safe enough to operate a farm tractor (along the contour and thus aid the use of soil conservation practices). (25% is the standard pitch for a roof on a house, (which a contractor would refer to as 3/12 or 3" fall per 12"). 17-1-2

Finally there could be a category for land too steep to operate to operate a farm tractor along the contour and is steeper than the roof on the average American's house

However rather than match cover type with the steepness as one would do for a play ground or roof on a house, DEP insists on the same kind of vegetative cover for all slopes. By enforcing a uniformly unimaginative cover types, DEP further impoverishes the landscape of West Virginia, limits game birds, and reduces the variety of songbirds and butterflies.

Another variable is that valley fills of different designs will have different runoff rates.

The simplest example being the a valley fill of the same size and shape with 80% durable rock will have a faster discharge of water than a valley fill f the same size and shape with 60% durable rock.

If the percent of rock is the same for two valley fills, but one has all the durable rock at the toe of the fill instead of through out, it should be both more stable and have slower discharge.

If rock and size are the same, but one has reversed slope terraces and the other doesn't, the first will have slower runoff than the second.

A common public need across the West Virginia is a need for flood control,

Yet the public use provision has never been used to address extra steps for reducing floods

Taking steps to reduce flooding would have a beneficial economic impact, yet the variance for economic use has never been approved for steps to reduce flooding

For example: as the pure economics crayfish farming and the economic need for a crayfish farm in Southern West Virginia would be hard to justify to the satisfaction of regulatory agencies as long as they only consider the price of crayfish in to their calculations. However if they would also consider the benefits that such a farm would contribute to the reduction of losses due to flooding then their calculations would be more accurate and fair to all.

In its interim regulations OSM had a rule against any depressions bigger than a square meter. Following that that time period, the Drainage Handbook became the standard in West Virginia. To this day the Drainage handbook still has a rule against depressions deeper than two tens of a foot. As a consequence of the earlier OSM rule and the current rule there are very few wetlands on mined lands and those that do occur are of very poor quality. Part of the reason that there are so few wetlands is that: 1.) the overall emphasis of the Drainage Handbook is to channel water off the mined site and 2.) there has been a regulatory agency tendency to consider every water retaining structure to be an impoundment so that even sediment ditches are required to be removed after mining. So the thought on the operational side has been why build something constructive, if you're going to have to destroy it later. 6-6-5

As a consequence vernal pools and ephemeral pools are rare.
Wet meadows are rare.
Wet forests are rare.
Absorption terraces are rare.
Zero runoff bench and berm systems are rare.
And I do no know of any crayfish farms on mined land in West Virginia. 14-3-5

All of these would result in more "organic energy" for aquatic organisms in the steams below the mining area.

Page 2 of comments on EIS by Lawrence T. Beckerle

Skijaba@aol.com
To: R3 Mountaintop@EPA
08/17/03 11:15 AM cc:
Subject: life of the mountain

Dearest those who care for us, please take time to think of the long term vision of the effects of mountaintop removal: wildlife habitat destruction with resulting extinction of flora and fauna, Changes in the air and weather, and loss of clean water sources for humans, animals and vegetation. The wars of the future will not be about fossil energy, the wars of the future will be about usable water. We are already getting warnings of this in our lives. Please awaken to our childrens best interests. Any greed based industry only contributes to our children's trials and tribulations. 1-9
sincerely,
barbara beer

Aug. 2003

REC'D AUG 2 0 2003

Dear John Forren, USEPA

Please take time to think About our children's Future. Mountains, Forests, animal habitat and water Are a Web where everything is connected to everything to Live. No useable WAter will soon be most important The wars of the Future will be About WAter. You Know mountaintop removal industry is A greed based business; truly the worst environmental, intentional, disaster now. Do the right thing For All. AWAken!

Sincerely

Barbara Beer

1-9

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"tricbee@yahoo.com" <tricbee — To: R3 Mountaintop@EPA
cc:
01/06/2004 12:33 PM — Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

How can the Bush administration support mountaintop removal mining?
This harmful practice destroys the environment and devastates the people living in small towns in Appalachia.

I have been horrified reading stories about the destruction caused by this form of coal mining. How on earth can the Bush administration justify making it easier for coal mining companies to turn wilderness into wastelands?

Please do what is necessary to protect the nature and residents of Appalachia.

Sincerely,

1-9

Tricia Behle
1433 Superior Ave. 326
Newport Beach, CA 92663
tricbee@yahoo.com

Mr. John Forren
U.S. EPA
1650 Arch St.
Philadelphia, PA 19103
Email- mountaintop.r3@epa.gov

REC'D DEC 2 2 2003

I oppose the practice of mountaintop removal mining. This mining is destroying our communities, homes and lives. We are constantly flooded, in homes that we have spent our lives in. We are being pushed out of our homes by the destruction caused by mountaintop removal mining. Our roads are being shut down ever time it rains this makes our rescue personal useless to us. Our tax dollars are what fixes all the mess caused by the mining going on around us. No wonder mining is so profitable we as citizens pick up the bill on the devastation caused by the mine companies. Please stop this insanity its killing out entire communities. Not to mention the effects it's having on our environment. The habitats of our animals are destroyed, running the wildlife away. Our streams are filled with rock that the mine companies pile into these valley fills. The waters get up and have no where to go but into peoples homes. Our mountains are exploding with water. These outbreaks come out into people's yard and underneath their homes. Our homes are literally being blasted off their foundations or the earth is opening up and swallowing them. Please stop the practice of mountaintop removal coal mining and save our homeland, our children's future and very possibly our lives

1-9

Name Bob Bell
Address Box 484
Danville, W.V
Phone 369-0569
Email

Mr. Gordon Bell
802 Cloud CAP Ave
Pagosa Spgs, CO 81147-9189

ALAMOSA, CO 81101 PM 31 DEC 2003

REC'D JAN 0 5 2004

Dear Mr. Forren,

Please do not weaken environmental protections for the practice of mountaintop mining.

1-10

Sincerely,
Gordon D. Bell
Gordon D. Bell
802 cloud CAP Ave.
Pagosa springs CO.
81147

Vaughn Bell

REC'D DEC 19 2003

December 17, 2003

Mr. John Forren EPA
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. John Forren EPA,

I am writing in regards to the Bush administration's plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. This type of mining is immensely destructive to the natural environment and also exacerbates health and environmental problems for an already struggling population. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-9 1-10

I'm disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. I do not support any of the three alternatives contained within the Environmental Impact Statement Report. All three options will make it easier for companies to destroy streams, endangering wildlife and nearby communities. 1-5

Sincerely,

Vaughn Bell
10 Vinton St Apt 1
Boston, MA 02127-3527

Joe Bergeron

DeliveredDate: 01/07/2004 08:10:51 PM

I feel I should pinch myself to make sure that the practice of "mountaintop mining" isn't the product of some nightmare I'm having.

Let me see if I've got this straight. Mining companies hire a few people to pilot gigantic machines over rural West Virginia, obliterating the tops of mountains and destroying the intervening valleys with waste, clogging streams and creating conditions for future flooding and erosion. In return for the paychecks offered to the few humans involved in this process, the people of West Virginia "benefit" by having the very landscape they inhabit trashed and denuded for centuries at least. 1-9

I regard this kind of policy as being nothing better than utterly foolish, short-sighted destruction inflicted by a few greedy men with no regard for generations to come. I abhor it absolutely.

Joe Bergeron
2732 King St.
Endwell, NY 13760

Mr. David J. Berkland
302 Mansfield St
Sharon MA 02067-3129

REC'D JAN 0 5 2004

Hi,
I am against mountain top removal mining.
Do not weaken environmental protections to protect from mining practices
protect from pollution and Erosion.
Thanks

DAVID J. BERKLAND ASSOCIATES
302 Mansfield Street, Sharon, MA 02067

BROCKTON MA 02301 PM

1-9

1-10

JOHN FORRER
U.S. ENVIRONMENTAL PROTECTION AGENCY (3EA30)
1650 ARCH ST.
PHILADELPHIA, PA. 19103

REC'D JAN 0 5 2004

RE: MOUNTAIN TOP REMOVAL ENVIRONMENTAL IMPACT STATEMENT (EIS)

MY WIFE AND I HAVE BEEN COMING BACK TO OUR BELOVED HILLS FOR 50 YEARS, ENDURING THE SORROW OF YEARS OF DESTRUCTION BY COAL MINING INTERESTS AND CLEAR CUTTING OF FORESTS BY LUMBER COMPANIES AT THE EXPENSE OF THE EXPLOITED PEOPLE OF APPALACIA. NOW, IN RECENT TIMES, THE HORRORS OF MOUNTAIN TOP REMOVAL (STILL CALLED COAL MINING) IS WORKING TO FINISH OFF THE USEFUL ENVIRONMENTAL REMNANTS OF THE HILL COUNTRY. 1-9

AFTER 4 YEARS OF STUDY OF THIS NEW MINING PROCEDURE, THE ADVERSE IMPACTS TO AQUATIC AND TERRESTRIAL ECO-SYSTEMS BECAME EVIDENT AND SO WAS DULY DOCUMENTED. YET THE PROPOSED ALTERNATIVES IN THE (EIS) OFFER NO MEANS OF ADDRESSING THESE IMPACTS. ALL IS PROPOSED IS THE STATUS QUO, WITH A PERMITTING PROCESS THAT RUBBER STAMPS ANY PROPOSALS OF MINING INTERESTS WITH ALMOST A CONSPIRATORIAL COLLABORATIVE EFFORT BY AGENCIES INVOLVED. ONLY THE U.S. FISH AND WILDLIFE SERVICE DEMURRED FROM THE (EIS) CONCLUSIONS, STATING THAT THE PROPOSED ALTERNATIVES OFFER NO SUBSTANTIVE MEANS OF ADDRESSING THE SERIOUS IMPACTS FROM MOUNTAIN TOP REMOVAL. 1-5

DESPITE SCIENTIFIC CONCLUSIONS THAT SUPPORT VALLEY FILL

(CONTINUED)

2.

RESTRICTIONS, MEANINGFUL PROPOSALS ARE REJECTED OUT OF HAND.

THE CLEAN WATER ACT SHOULD BE THE BASIS FOR CONTROLLING ACTIONS AFFECTING VALLEY STREAMS AND WATERSHEDS. NO CHANGES SHOULD BE MADE TO WEAKEN LAWS AND REGULATIONS THAT PROTECT OUR PRIMARY RESOURCE CLEAN WATER. RESTRICTIONS SHOULD BE BASED ON THE SIZE OF VALLEY FILLS, CUMULATIVE IMPACTS, TYPES OF STREAMS AFFECTED, OR VALUE OF THE AQUATIC RESOURCES IN THE REGION. BUFFER ZONES MUST BE MAINTAINED THAT PROHIBIT MINING ACTIVITY WITHIN 100 FEET OF STREAMS. THE ANTI-DEGRADATION RULES OF THE CLEAN WATER ACT TO PROHIBIT THE USE OF VALLEY FILL SHOULD APPLY. 1-10

IN SHORT, MOUNTAINTOP REMOVAL IS TOO DESTRUCTIVE TO MAN AND HIS ENVIRONMENT TO BE ALLOWED TO CONTINUE AND LEAVE SUCH A GRIM LEGACY IN THE APPALACIAN COMMUNITY. 1-9

Michael E. Bialas

MICHAEL E. BIALAS
3941 E. 37TH PL
TULSA, OK 74135-2206

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

BBfromesun@aol.com
01/04/2004 03:24 PM

To: R3 Mountaintop@EPA
cc:
Subject: mountaintop mining

To Whom It May Concern, Please do not allow mountaintop mining to occur unless strict limits are placed upon its continued use. The prospect of 350 more square miles of Appalachia laid waste by this pillage of the environment is unacceptable! Let's be "stewards of the Earth", not destroyers of it -- it's the only Earth we have. Thank you! 1-9

Bonnie Biddison, 653 Oak Run Trail,
#209,
Oak Park, CA 91377

CHARLES R. BIGGS
P.O. Box 127
Berkeley Springs, WV 25411
(304) 258-8477

REC'D AUG 2 1 2003

August 19, 2003

Mr. John Forren, US EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Subject: Draft Environmental Impact Statement on Mountain top Removal

Dear Mr. Forren;

I find it difficult to believe that despite having accumulated 5,000 pages of study documenting the damages which the existing practices of mountain top removal strip mining have caused to water quality, air quality, and quality of life to neighbors the Draft EIS makes no recommendations regarding proposing alternates or even forbidding the practice completely. 1-5

Also as a civil engineer who has spent more than forty years in the practice of designing and constructing foundations for buildings and highways I can not believe that the loose unconsolidated fills produced by the manner in which the valley fills are placed will result in a suitable medium for the foundations of roads, buildings or even park land structures. This type of a fill, in my experience, would never be suitable for supporting any structures. 13-2-2

Very truly yours,

cc: WV Highlands Conservancy

----- Forwarded by John Forren/R3/USEPA/US on 01/04/04 02:36 PM -----

Cathie Bird <iamhawk@bellsouth.net> 01/04/04 01:56 PM
To: John Forren/R3/USEPA/US@EPA
cc:
Subject: mtr and vf eis comments

Thanks for the opportunity to comment on the findings and recommendations of the mountain top removal and valley fills EIS. After reading through this very large and challenging document, I do not feel that I can endorse any of the options presented. 1-5

I live in the Elk Valley area of Campbell County, Tennessee, just south of the Kentucky border. During the past year my neighbors and I have been concerned about the 2100-acre Zeb Mountain project which features cross-ridge mining—a form of mountain top removal. Many citizens and groups in Tennessee are concerned with mountain top mining and valley fills, and I am disappointed that Tennessee's issues and history with MTR had such minimal attention in the EIS and that opportunities for public meetings were virtually non-existent. 3-4

I am further concerned that the nature and consequences of cross-ridge mining were not adequately addressed. In Tennessee there have been few if any permits for Mountaintop Removal. Instead OSM's Knoxville Field Office has been issuing permits for other types of Mountaintop Mining. Over the past 10 years OSM's Knoxville Field Office has issued five permits for "Cross Ridge Mining." I view Cross Ridge Mining as a type of Mountaintop Removal and am opposed to this practice. The use of a different name for what amounts to basically the same practice is a cynical attempt by the industry and regulatory agencies to avoid the scrutiny that has been focused on Mountaintop Removal.

My main concern is that valley fills and the 100' stream buffer zone are not adequately addressed by any of the alternative actions. The EIS appears to substantiate scientific studies, as well as common sense and local experience, that mountain top mining and valley fills impact headwater streams as well as downstream conditions. In Section III-D the EIS summarizes eight potential impacts such as loss of upstream energy from buried stream reaches and changes in chemistry, flow and sedimentation downstream. That's why I'm really confused about why we're still talking about messing with the 100' stream buffer zone rule or allowing any valley fills at all. 1-10

As I read the alternatives proposed in this EIS, our only choice regarding valley fills is how much damage to the watershed we're going to say is okay. If declaring the 100' stream buffer zone inapplicable to valley fills is what you mean by rewriting and clarification, then we're headed in the wrong direction. We need to keep that buffer for all streams and every project, period. If "science-based methods" can't tell us what the size limit of a valley fill should be, then let's not do any

more until we figure it out.

Some of us feel that the Zeb Mountain permits were issued before all of our concerns were adequately addressed. Now, several months after mining began on Zeb Mountain, we are seeing substantial sedimentation in one of the waterways that drains that area. The sad truth is that current surface mining and water pollution laws and attempts to enforce them do not prevent damage to the environment. I'm very concerned that alternatives offered in this EIS not only weaken these laws further but also fail to improve enforcement. As I see it, the only thing that's being streamlined here is the destruction of the waters and mountains of Tennessee and the other Appalachian states. 1-5

Cathie Bird
PO Box 154
Pioneer, TN 37847

January 19, 2004

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 23 2004

Dear Mr. Forren,

I am writing to you with concern over the recommendations provided in the Environmental Impact Study (EIS) released in May, 2003.

The EIS report documents extensive environmental damage caused by mountain top removal and valley fills between 1985 and 2001, including:

- 724 miles of streams across the Central Appalachian region were buried by valley fills between '85 and '01
- Another 1,200 miles of streams have already been impacted by valley fills. 1-5
- Without additional restrictions, a total of 2,200 square miles of Appalachian forests (6.8%) would be eliminated by 2012 by large-scale mining operations
- Without additional environmental restrictions, mountaintop removal mining will destroy an additional 600 square miles of land and 1,000 miles of streams in the next decade.

Despite these findings, the EIS report recommends

nothing that would restrict the use of valley fills or enforce existing laws. In addition, the report actually suggests weakening existing laws and regulations that protect clean water! 1-5

News of this information has outraged me. These ridiculous recommendations ignore scientific evidence about what mountain top removal is doing and ignores our needs for clean water and a safe, healthy environment. They also ignore a study that the government has spent tax money, time, and energy bothering with. Why intentionally create such a waste? 1-9

I conclude this letter in hopes that our federal government will act wisely, and will meaningfully consider specific, significant restrictions on the use of valley fills. Please do not deflate our existing laws, or make it easy to ignore them. I welcome scientific studies that document the widespread and irreversible damage the coal industry is doing to our state and region. I hope you do, too. 1-10

Stephanie Blessing,
211 Arlington Ave. #2
Lexington, KY 40508

Aug 29, 2003

REC'D SEP 04 2003

Mr. John Ferren,

I speak for the citizens in the county Van Wa. We would like to know where the EPA was and is now when they the coal companies have been strip mining and logging all around us and that has caused flooding and land slides all up and down Rt 85. There are landslides all along the railroad track and then the Railroad sent work crews out to dip up the slides with a back hoe and put it over in the river and now when it rains they have caused the river to be pushed over on the peoples property. We can 17-22

see that the governor over our state Bob Wise had nothing to stop this and its unlikely he will, But what ever we have to do if we need to go to Washington to protest we will. We have worked all our lives to have a home and we will protect it. Strippers say we need the jobs We say not at the cost of our homes. Where is all the timber going that they take out of this state. This State has been raped just to please a few rich men and other play their political games. They sacrificed a historic town (Blair) and polluted the air so bad here you can hardly breathe because of the smoke holes from when they mined years ago. We are fed up with the whole mess over

10-2-2

Signed
Ruth Blevins
P.O. Box 241
Van W Va
25206

P.S When do the lives of people come before Money I am ashamed to tell people where I am from when they ask. a view from a small plane over us looks like the area has been a War zone.

1-9

Wake up before they the coal cos and the loggers cause another Buffalo Creek.

I'm sending you a pamplet, if you haven't seen it before.

Need Help? For Assistance Contact

NATIONALLY

Sierra Club
408 C St. NW, Washington DC 20002 · 202/547-1141
In West Virginia: Regina Hendrix: 304/343-6211
reginahand@aol.com

WEST VIRGINIA

Citizens Coal Council (CCC)
attn: Bill McCabe, 304/339-2523
PO Box 251, Valley Head, WV 26294
www.citizenscoalcouncil.org
stopcoalcrimes@yahoo.com

Coal River Mountain Watch (CRMW)
attn: Julia Bonds, 304/854-2182
Box 651, Whitesville, WV 25209
crmw@charter.net

Ohio Valley Environmental Coalition (OVEC)
attn: Vivian Stockman, 304/522-0246
PO Box 6753, Huntington, WV 25773-6753
www.ohvec.org • StopMTR@ezwv.com

West Virginia Highlands Conservancy (WVHC)
attn: Julian Martin, 304/342-8989
PO Box 306, Charleston WV 25321
www.wvhighlands.org

West Virginia Rivers Coalition (WVRC)
attn: Jeremy Muller, 304/637-7201
801 North Randolph Ave, Elkins, WV 26241
www.wvrivers.org • wvrc@wvrivers.org

KENTUCKY

Appalachian Focus (AF)
attn: Larry Wilson, 606/248-6604
Route 2 Box 66AA
Middlesboro KY 40965
www.appalachianfocus.org

Big Sandy Environmental Coalition (BSEC)
attn: Monroe Cassady, 606/298-3148
PO Box 314, Inez KY 41224

Kentuckians For The Commonwealth (KFTC)
606/878-2161
PO Box 1450, London KY 40743
www.kftc.org

Kayford Mountain

This site provides best view of MTR accessible to public.

Directions: From Charleston, the State Capitol, take I-64 East. Pass the first toll gate and take the first exit, #79 (Sharon-Cabin Creek). Go right at the bottom of the ramp and then make an immediate left onto Cabin Creek Road. Go 7-1/2 miles to the "Y" at Leewood and take the right fork. Go 3-1/2 to 4 more miles and come to blacktop and dirt. At second corner take the one-lane bridge across the creek. Stay on this road for 1-1/2 to 2 miles and go right up the hill. Follow the guard rails to the end where you will come to a large white rock. Park where you can and walk past the rock to the cemetery for a view of MTR. Bear right for 1/10 mile to Stanley Heirs Park. For more information contact Larry Gibson, who is a Stanley heir and Kayford guide. He can be reached at (304) 542-1134.

This brochure was printed and paid for by a grant from Sierra Club's Environmental Justice Program

IMPORTANT FACTS

Mountaintop Removal (MTR) is defined as the strip mining practice of blasting off the tops of mountains so huge machines can mine thin seams of coal. Coal companies dump the mountain tops into nearby valleys and streams to create "valley fills," converting beautiful mountain landscapes covered with hardwood forests into barren acres of sparse grass.

■ Over a five year period (1992-1997) records show mines have been cited by state authorities more than 3,500 times for sediment problems and exceeding limits on discharges of silt and chemicals. *– Penny Loeb, US News & World Report*

■ The mountain area destroyed by mountaintop removal is equal to a one-mile-wide swath from Charleston, WV to Myrtle Beach and on to Jacksonville Florida. *– Julian Martin, West Virginia Highlands Conservancy*

■ It will take 150-200 years before trees would become reestablished. *– Bill Maxey, Retired Director, WV Div. of Forestry*

■ In 1998 MTR employed a total of 2,300 people, less than 0.5 percent of all state jobs in West Virginia. *– Compiled by Carolyn Johnson from MSHA data, Citizens Coal Council*

■ The Charleston Gazette...investigated 81 permits issued by the DEP and found that only 20 had been written legally. *– Ted Williams, Mountain Madness, Audubon Magazine*

■ Over 60,000,000 board feet of new growth hardwood timber are lost every year, forever, to mountaintop removal strip mining. *– Bill Maxey*

■ Complaints by citizens received by WV Department of Environmental Protection over an eight-month period (from 6/01 to 2/02) included 252 for blasting and 79 for dust. *– Penny Loeb, US News & World Report*

■ 1000 miles of streams have been buried or are permitted to be buried by valley fills. *– WV Dept. of Environmental Protection*

Facts from the US Environmental Protection Agency "Mountaintop Mining: Environmental Impact Statement" (Preliminary Draft of October 2000)

EPA/9035R-001-013

• ...when projected future timbering is included, the total forest area in the region that could be seriously damaged in the future reaches nearly 1 million acres.

• If mountaintop removal is not dramatically curbed, many more miles of additional streams will be buried by valley fills....Streams that aren't buried could be seriously polluted. Wildlife, songbirds and fish in a rare, ecologically diverse area will likely be lost.

• ...scientists have found little evidence to support coal industry claims that modern reclamation can bring new life to land that is flattened by mountaintop removal.

• When coupled with future mining, there is the potential for more than 1,500 square miles of forest to be lost.

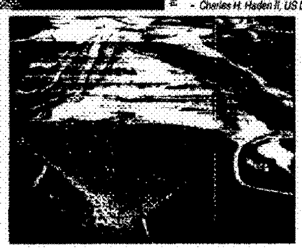
"Act of God" No! Act of Coal!

"Environmentalists predict that in two decades half the peaks of southern WV's skyline might vanish."
- US News & World Report

"God put the mountains and the trees here, to protect these valleys and the people who live in these valleys. Now, they've taken the tops off the mountains. They've taken the trees away. They've taken from God's creation. There's nothing to protect us anymore."
- Pauline Canterbury Sylvester, West Virginia

"Addington's 5200-acre Starfire Mine in Kentucky has damaged or destroyed the water supplies for an estimated 700 families."
- Kentuckians For The Commonwealth

Photo by OVEC



Above: On July 8, 2001 five inches of heavy rains hit Southern West Virginia and six people died. This house, in Bulgar Hollow in Raleigh County, is one of the 1,500 homes destroyed in the flood. Many flood victims point the finger at MTR as the cause of this devastating flood. Federal studies support the flood victims.

Right: With MTR mountaintops are blasted away, and the mining waste is dumped into nearby streams, creating valley fills such as this one. Note the size of the equipment being used: Two 100-ton trucks are in left center of photo. According to the National Mining Association there have been 6000 valley fills in Kentucky and West Virginia in the past 25 years.

"They came in here and stole our land, killed a hundred thousand miners, polluted our streams, ground our roads into dust with their coal trucks, and then they have the nerve to tell us that they should be able to destroy our mountains because they have created jobs.... by exploiting the people they employ."
– Denise Giardina, Appalachian Author & Activist

"The riches are all taken out but people still feel indebted to the coal industry... this is insanity!"
– Patty Wallace, Louisa, Kentucky

"When valley fills are permitted in intermittent and perennial streams they destroy those stream segments...If there are fish, they cannot migrate. If there is any life form that cannot acclimate to life deep in a rubble pile, it is eliminated... No effect on related environmental values is more adverse than obliteration."
- Charles H. Haden II, US District Court Southern District of WV

"Fifteen minutes out of Charleston the most diverse and productive temperate forest on earth gave way to sprawling brown ulcers strewn with black piles of slate spoil and dingy pits full of half-frozen slurry - a toxic brew of water, coal dust, mercury, lead, arsenic, copper and chromium."
- Ted Williams, Audubon Magazine

PLEASE POST

Mountaintop Removal Destroys Our Homeplace!

Photo courtesy of Penny Loeb

STOP THE DEVASTATION

For assistance see list of organizations on other side of this poster.

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"carzy_queen@hotmail.com" <carzy_queen

To: R3 Mountaintop@EPA

cc:

Subject: Please Stop Destructive Mountaintop Removal Mining

01/06/2004 06:48 PM

Dear Mr. John Forren, Project Manager,

I want my children and grandchildren to live in a beautiful world too! For we do not receive the world from our parents, we borrow it from our children. I cannot imagine raising a child in a world our once beautiful natural parks, have been replaced with garbage dumps! I beg you to think of your own great grandchildren and the beauty you would keep them from seeing, and amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. 1-9

Sincerely,
Margaret Block
Valley Rd
Ithaca, NY 14850
carzy_queen@hotmail.com

REC'D JAN 0 9 2004

Kathryn Blume
205 Rocco Road
Charlotte, VT 05445
802-482-2488
kablume@mindspring.com

January 2, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren:

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-9 1-10

All this aside, you are supposed to be the Environmental PROTECTION Agency. Protecting the environment isn't a luxury, nor is it some kind of partisan entertainment. It is a dire necessity, and if you can't stand firm against the insensitive and almost archetypal rapaciousness of the Bush Administration, then I humbly suggest that you step aside in favor of someone who can.

Do a good job! Do the right thing. You know you can!

Sincerely,

Kathryn Blume

July 24,2003

AUG 14 2

Written statements to EIS study: **STOP THE ASSUALT ON THE PEOPLE AND THE ENVIRONMENT IN APPALACHIA, STOP MOUNTAINTOP REMOVAL!!!!!!!**

This draft EIS study takes science and twists it into lies---this study lacks common sense and humanity. This study is un-American, unchristian, plain evil and is environmentally insane. This study was commissioned to evaluate ways to protect the people, streams, endangered species and the environment of Appalachia, but this study contains evidence of the exact opposite. **The recommendations in this study are designed to DESTROY that which it was bound to protect. This study lacks humanity and common sense.** For 9 generation my family has lived in the Coal River Valley, Southern West Virginia, and Central Appalachia in the heart of the coalfields. I am the daughter, sister, granddaughter and great granddaughter of coal miners. During my lifetime I have NEVER seen or experienced a more devastatingly evil, catastrophic form of mining than Mountaintop Removal. This type of mining is also paramount of environmental and social injustice as is this EIS statement that supports this mining. 1-9 The authors and supporters of this statement have belittled the impacts on communities, culture and humans of our very ethnic, oppressed and poor part of Appalachia. **Not ONE official of this study has been to the coalfield study area to investigate the effects on low income and minority people, NOT ONE official has investigated the impacts to the people and property in this study area. Instead the time and money for this study was spent trying to accommodate the coal industry, corporations and wealthy executives of these companies. This part of the study and the recommendations MUST be done again!!!!!!** 10-2-2

As the Community Outreach Coordinator for a nonprofit grassroots organization I submit the following impacts---personal, observed and compiled from residents living in the effected areas. **Your study DID NOT study the impacts to the residents and the people of the study area. Your study instead spent ALL the money paid by taxpayers to find ways to allow this evil mining method to continue.** 10-2-2

1. **Destruction of streams and waterways; Well over 700 miles of streams have been destroyed**---I believe this estimate to be LOW. Mountaintop Removal/Valley fill mining destroys, eliminates and contaminates the MOST important requirement of sustaining LIFE— **CLEAN WATER!!!!!** Furthermore our culture relies on and low income residents use Appalachian streams for food, recreation, baptisms, spiritual and cultural events and drinking water. Only an idiot would destroy water---the essence of life. This study team has NOT done as requested---drill into a number of valley fills and monitor to see what the water is doing. 5-7-2
2. **Destruction of Forests; YOU CAN'T PUT IT BACK!!!!!** These forests **sustain the low-income people and indigenous people in central Appalachia.** Nuts, berries, feed the people and animals, which the people hunt for food. Ginseng is a commodity for our health and brings income to the low-income people. The loss of forest and natural habitat is bringing the wildlife in the human communities---poisonous snakes, bears, squirrels, raccoons etc…sometimes with rabies. This is happening at an alarming rate. The wildlife is invading human areas. **This study does NOT include the loss of the medicinal herbs and roots found in the study area. We are poor, lack medical care and we use the medicinal herbs found in the study area.** A new study on these herbs and trees is being conducted at West Virginia University for probable/possible cures for deadly diseases. **This under story is also part of our heritage and culture.** Ramp festivals held every year and ramps have great medicinal value…residents swear by the potent plant for many ailments including male virility and overall health. Others are bloodroot, yellow root, goldenseal, blackberry root…how long before these will grow and regenerate on sites? **Where is your report on this?** 11-5-2
All this sustains our health, lives, food, income, culture, heritage and our children's future. This falls under the executive order for environmental justice. The loss of the **FULL NATIVE forests** also is a loss for future incomes in our area…there is no viable study on the cumulative loss of forests----West Virginia employs almost 30,000 people in hardwood timber…with the loss of our forests…there goes loss of taxes and jobs lost for the next 300 years and sends the timber industry to the scenic area of our states, and there again loss of future income. 11-6-2 What tourist wants to see clear cuts? The local residents has also noticed **weather pattern changes** with loss of forests…the forested mountains used to protect us from high winds…the loss of the mountains height and forests has allowed more wind into the valleys and damaged their property. Where is the study on this? This affects ALL of West Virginia, not just the study area. **In essence by allowing Mountaintop Removal to continue to destroy these mountains and forests, you are destroying the sustainability of the mountain culture and the lives of** 11-7-2

Appalachian Americans. We are poor and cannot live without these mountains, the ecosystem and culture that depend npon these mountains. Our mountain culture is one of the very last of its kind in America.

3. **BLASTING EFFECTS; HOW DARE THIS STUDY BELITTLE THIS! Again this falls under the executive order on environmental justice and socio-economic impacts.** People's homes are their life investments and a large number of retired people live in the study area. Blast damage and emotional stress from blasting and the damage from blasting occur frequently in the study area and sometimes occur up to 12 miles from the mining site. The West Virginia DEP has records on the large number of blast complaints. Blast, according to your study, emits air pollutants, which your study says rarely goes beyond 1000ft. **This is an outright LIE!** I have seen it with mine own eyes and the proof exists that the fumes goes much further and invades communities. **When your community is surrounded by Mountaintop Removal sites that blasts 364 days a year, that is cumulative impact and your study DID NOT address this.** Perhaps because it is NOT your child that is subjected these war crimes. Your EIS study says that adequate laws are in place—that people can seek redress in courts systems---Another BLATANT LIE!!!! These laws do NOT protect the residents…they protect the coal companies. In other extractive industries the liability is assumed on the company, but to the coal industry..The burden of proof is on the poor people. **The poorest people, in the poorest state, live in the coal rich counties of West Virginia, we rank last in income. How can they afford lawyers for justice in the court system? Again this goes to the executive order for environmental justice and low-income people. Your own study states that the people living in the study area are 30% above the national average in poverty levels. Your study facts contradict your conclusion on this issue—AGAIN!! This study constantly defies the executive order on environmental impacts of low income and minority people.** Perhaps the authors of this EIS study feels this way because it is NOT THEIR HOMES THAT IS BLASTED and your children are NOT subjected to these crimes. 16-3-2 10-7-2

4. **FLOODING OF DOWNSTREAM COMMUNITIES… How dare your study dismiss and belittle this impact!!!!** AS in the impacts of blasting, and adding insult to injury, people's homes and lives are lost in the downstream flooding that this mining creates. Evidence proves that Mountaintop Removal greatly contributes to flooding during rain events. **Our people living in these effected communities suffer from Post Traumatic Stress Disorder from blasting and flooding.** This has purposely gone overlooked by this EIS statement. Many children and people after flooding episode go to bed fully dressed and packed ready to evacuate when a rain event occurs. The taxpayers of America pays for these disasters and there are many, many more to come. The **PTSD** must be addressed and the people affected by this should be given treatment. I guess none of the authors of this so-called impact statement has ever stood and watched their lives and their children's future float down the river because of Man's GREED!!!!! No man's, CEO'S, or stockholder's paycheck is worth my child's life. With the steep terrain in Central Appalachia, we expect some small amounts of flooding in our streams but this flooding was like nothing we have ever seen. People saw 10ft. tall walls of mud coming down on their homes. GOD should have hung a "DO NOT DISTURB" sign on these ancient, beautiful mountains but HE never thought MAN would commit such an horrible deed against HIS creation. How very upset HE must be with HIS children. STOP DESTROYING THESE MOUNTAINS!!!! STOP FLOODING MY PEOPLE!!!!! **Again this is out of compliance with the Executive Order on Environmental Justice in low income and minority people.** 17-2-2 17-2-2

5. **ECONOMICS… Mountaintop Removal destroys more jobs than it creates.** The tax base from people's jobs is missing and that is a great loss to our state in revenue. This TWISTED study fails to address economics issues—cumulative as well as present and future--- from the residents and taxpayers view point. **A.** Why are the people living in the coalfields poor? One answer is because the coal companies with aid from corrupt elected officials created a colony and a mono-economy dependent upon one evil industry—COAL and conspires to keep diverse economic development out of the coal fields. **B.** Coal says it supports schools---While the National trend is to move away from consolidated schools—the politicians in West Virginia are closings schools and busing students up to 4 hours. At least 2 schools in the coalfields that sit beside Massey operations have been closed this year alone. Put this in your study…why is this happening? More coal is mined than ever before. **C.** Taxpayers of West Virginia and America are "footing the bill" for Appalachian disasters caused by greedy irresponsible mining. FEMA doesn't grow money on trees—this is America's Tax Dollars at work. Many more mining disasters will be in the near future if Mountaintop Removal is continued. STOP it NOW! **D.** Many people in 9-4-2 11-9-2

your study area are low income and without health insurance—sediment ponds cause higher levels of disease carrying mosquitoes and the people living in the study area are being affected by this situation more and more as each new permit and pond is allowed. The taxpayers of the study area states and the taxpayers of America will pay the bill for the health effects of this type mining.

6. **ENVIRONMENTAL JUSTICE—EXECTUIVE ORDER.... As your study says " unemployment, poverty and out-migration is well above the national average".** This socially evil EIS draft defies the Executive Order #12898. Again coalfield residents are of low income and are definitely an invisible minority and ethnic class—labeled by media, movies, and television as "inbred, ignorant hillbillies---so much so that the city of Cincinnati included a human rights clause against discriminating against Appalachians during the out-migration in the years of the up-down cycle of coal mining. The authors of this EIS statement must think we are "ignorant hillbillies". Many people think a conspiracy exists to depopulate the rural coalfields---An Appalachian Trial of Tears. I think this conspiracy exists and this EIS statement encourages that conspiracy and may be part of that conspiracy, either knowingly or unknowingly. **Your study in fact promotes genocide of the people living in this study area, your study promotes the crimes against the people and children of this area that the coal industry is committing against my people, in effect your study promotes and protects those that commit these crimes.** 10-7-2

7. **CULTURAL IMPACTS AND LANDSCAPES**---this section is the BIGGEST JOKE in the statement!!!!! Contrary to your report, regulatory agencies do NOT possess the knowledge to address current cultural landscapes and have admitted this. Please contact Dr. Mary Hufford at the University of Pennsylvania for a report and study she has concluded. Regulatory agencies merely rubberstamp permits. **We have a distinct and unique culture here in central Appalachia and HOW DARE YOUR STUDY IGNORE AND DISMISS OUR CULTURE AND OUR PEOPLE.** We have the right to pass on to our children this culture and heritage and we cannot do this without these mountains…the mountains are a central and very important part of this culture. Again these mountains and the surrounding ecosystem give life and sustainability to our culture and our children. Again this goes directly to the heart of the executive order on environmental justice for low income and minority people. **Revise and include this in this EIS statement!** 10-2-2

8. **ENDANGERED SPECIES AND WILDLIFE..... The habitat of endangered species is not only sacrificed but ALL wildlife in the study area is being destroyed, as is their habitat.** The wild life is invading human habitats at an alarming rate and posing a threat to humans and our children. All my life I knew wildlife existed in the wild area of our mountains, but unless I invaded their habitat, I never crossed their paths, now it is the norm to see wildlife in our yards and homes. The corrupt officials in the WV Division of Natural Resources says that it is over breeding.... but I am not stupid…if wildlife habitats exists of 10,000 acres and the greedy coal companies destroy 9,000 acres and the wild life breeds, that leaves less acres for wildlife to live. That scenario can be twisted to fit the corrupt and evil agencies agendas…much the way the authors of this EIS has twisted the facts. On Indiana bats and birds, as I said not only endangered species is at risk, but all wildlife and humans are at risk from Mountaintop Removal. Valley fill mining creates manmade sediment ponds and false wetlands…these ponds pose life threatening health impacts to humans and particularly their children. **These ponds increases the population of disease carrying mosquitoes** and the Mountaintop Removal mining has already destroyed the mosquitoes natural enemy that keeps these mosquitoes in check…the habitat for the Indiana bat and all other bats and some birds has been destroyed, thereby stopping and destroying GOD'S own natural check and balance system here in Appalachia. **HOW VERY DANGEROUSLY ARROGANT OF MAN TO CHANGE GOD'S ORDER AND ALL FOR GREED!!!!!!** Very few natural ponds and lakes exists in the coal fields of West Virginia, GOD put free flowing water and streams here for a reason. **AGAIN THIS EIS STATEMENT DOES NOT ADRRESS THE CUMULATIVE IMPACTS TO THE PEOPLE IN THE AREA AND TO THE PEOPLE OF THE STATE. THE HEALTH, CULTURAL, EMOTIONAL, SOCIO-ECONOMIC, ECONOMIC, SPIRITUAL AND ENVIRONMENTAL JUSTICE IMPACTS ARE ENORMOUS. WE CHALLENGE PRESIDENT BUSH, AS ONE CHRISTIAN TO ANOTHER TO COME TO THE HOLLOWS AND VISIT WITH THE PEOPLE THAT HAVE BEEN FLOODED, BLASTED AND IMPACTED BY MOUNTAINTOP REMOVAL MINING AND TO INVESTIGATE THE PRESIDENTS ADMINISTRATORS OF THE AGENCIES THAT ALLOWS AND ENCOURAGES THIS ASSAULT ON THE PEOPLE OF APPALACHIA TO CONTINUE. I AM SURE ONCE THE PRESIDENT HAS DISCOVERED** 8-1-2 9-4-2

THESE CRIMES AGAINST THE CITIZENS, HE WILL NOT ALLOW THIS TO HAPPEN, AND HE WILL STOP MOUNTAINTOP REMOVAL. NO TRUE GOD FEARING MAN WOULD ALLOW THESE THINGS TO HAPPEN TO INNOCENT PEOPLE AND CHILDREN FOR CORPORATE GAIN.

Julia Bonds
Coal River Mountain Watch
P.O. Box 651
Whitesville, West Virginia 25209 304-854-2182

Dec 18, 2003

REC'D DEC 2 4 2003

Dear Mr. Forney,

Please accept this revised set of comments. They are the same as the one I sent you in July, but I changed one sentence that has a mistake in it. The sentence is highlighted.

Sincerely,
Julia Bonds

July 24, 2003

REC'D DEC 2 2 200

[redacted]

My family and I have been here many years and for many generations. I am the sister, daughter, granddaughter and great granddaughter of coal miners. My home is in the heart of your study area and in the belly of the beast--the beast is the greedy, irresponsible coal barons and the corrupt regulatory agencies and politicians that serves as the minions of this beast.

This draft EIS is a blueprint for continued assault upon the people of Appalachia, a declaration of war upon our children, their children and GOD'S creation. Enough, STOP Mountaintop Removal, NOW!!!!! 1-9

This EIS encourages the coal industry to continue to use—to rape and take---Appalachia and her people—as a national sacrifice zone.

This EIS did NOT study the cumulative effects of environmental, community, human, cultural; health and socio-economic impacts of post, present and future Valley fill mining. How did you study the environmental justice impacts in this draft? You did not study the cultural, community, people and property being destroyed by this mining method, you dismissed it. 10-7-2

I demand a revised EIS that includes cumulative impacts of cultural, social, emotional, and spiritual and health problems of communities affected by Mountaintop Removal.

A partial cultural study already exists, this study by Dr. Mary Hufford is available on the Library of Congress website and Dr. Hufford---Dr. of Ethnography can be reached at the University of Penn. Our mountain culture has been her long before the white settlers came and before
commercial coal mining began. Our culture will be here long after the coal is gone! 9-4-2

It is believed that many people in Mountaintop Removal effected communities suffer from Post Traumatic Stress Disorder--from blasting and flooding. How dare you dismiss the suffering of low income and the invisible minority people of central Appalachia!! How dare you dismiss and defy the Executive Order dealing with environmental justice, the low income and minority people. 10-7-2

Your own study says that this area is well above the average in poverty and unemployment. Where is the study on socio-economic problems of the area? Why are the people in the coal rich counties the poorest? What are the ACTUAL costs to the communities and people that suffer the effects of Mountaintop Removal? This mining effects the very poor, the powerless and oppressed people. Economic Development of these artificial sites? Only 6 % of these destroyed mountains are ever given any economic development for the affected communities. Where is the study on this?—I want to see the figures and a study on how much "prosperity" goes back to Buglar Hollow or Bob White or Montcoal, or any small mining community. 10-2-2

In the last 6 months, 2 schools in the Coal River Valley,
Both surrounded by many Massey mining permits, was closed. Sending our children on very, very long bus rides. One was at Montcoal—Marsh Fork High School-----where is the support---where's the money? The Raleigh County Board of Educations said it does NOT receive a red cent from coal tax for education---coal says it gives---who is lying? I want to see a report on that.

The scientific evidence of this study shows that Mountaintop Removal is environmentally insane, but the recommendations by the administration is to make it easier for the greedy coal companies to destroy everything, which leads me to believe that even worse scientific evidence was omitted from this study. Even so, your report makes an airtight case against your conclusions. Your report and your conclusions strongly contradict. Did a complete idiot write the conclusions?

AS a fellow Christian I challenge President Bush to come to the coalfield hollows in central Appalachia and talk with the blasted, flooded, poor and the oppressed people impacted by Mountaintop Removal. I ask President Bush to investigate his agencies, No true Christian would allow these evil abuses to continue. I am sure once the President discovers these crimes against the citizens of Appalachia, he will stop Mountaintop Removal. NO true GOD-fearing man would allow these crimes to continue.

People should NOT have to make a choice between a job now and destroying their children's future, making their neighbors suffer and selling their eternal souls in the bargain.
Revelation 11:18
Thy wrath is come, that they should be judged, and that thou shouldest give reward unto thy servants the prophets and to the saints and them that fear thy name, small and great; and shouldest destroy them which destroy the Earth.

HOW VERY, VERY ARROGANT OF MAN TO THINK HE CAN DESTROY GOD'S CREATION.

Julia Bonds
P.O. Box 135
Rock Creek, West Virginia 25174

---- Forwarded by David Rider/R3/USEPA/US on 01/30/2004 11:21 AM -----

Douglas Boucher <douglasboucher@earthlink.net> 01/22/2004 09:02 AM
To: R3 Mountaintop@EPA
cc:
Subject: Save Streams from Mountaintop Mining

January 22, 2004

John Forren, Environmental Protection Agency
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

The mere thought that a civilized nation that was already consuming far too much energy from fossil fuels would resort to the incredibly high environmental impact method of mountaintop mining is disgusting. This is obviously only a way to gain short term profits at the expense of long-term damage to all ecosystems from the mountain all the way downstream to the oceans, not including the added carbons and heavy metals to the waters and atmosphere.

The administration and the departments involved should be exceptionally ashamed of any actions condoning mountaintop mining. I am opposed to any changes that would weaken the laws and regulations that protect our rivers and streams from the effects of mountaintop mining and valley fills. As a result, I am opposed to each of the alternatives evaluated in your May 29, 2003 draft Environmental Impact Statement (EIS). 1-10

Your draft EIS contains indisputable evidence of the devastating and irreversible environmental harm caused by mountaintop mining. Other agency studies also show that mountaintop mining contributes to flooding disasters in mountain communities. Unfortunately, each of the alternatives in the draft EIS ignores the findings of these studies and the very purpose of the EIS- to find ways to minimize, to the maximum extent practical, the environmental consequences of mountaintop mining. The draft EIS does not examine a single alternative that would reduce those impacts. 1-5

Worse, your "preferred alternative" would clearly increase the damage from mountaintop mining by eliminating the Surface Mining Control and Reclamation Act's buffer zone rule that prohibits mining activities that disturb any area within 100 feet of larger streams, eliminating the current limit on using nationwide permits to approve valley fills in West Virginia that are larger than 250 acres, and giving the Office of Surface Mining a significant

new role in Clean Water Act permitting for mountaintop mining (a role it does not have under current law). 1-5

Our environmental laws require, and the citizens of the region deserve, a full evaluation of ways to reduce the unacceptable impacts of mountaintop mining. I urge you to abandon your "preferred alternative" and to reevaluate a full range of options that will minimize the enormous environmental and economic damage caused by mountaintop mining and valley fills.

Thank you for your cooperation.

Sincerely,

Douglas Boucher
3824 Suffolk Ln
Plano, TX 75023-1051
USA
douglasboucher@earthlink.net

Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM ----

Biff Bowen <biff@bowenjewelry.com> 01/05/2004 04:56 PM

To: R3 Mountaintop@EPA
cc:
Subject:

Dear EPA,
Recent articles about mountain removal are disturbing. Please do not allow
further destruction of the beautiful mountains of SW Virginia and West Virginia. 1-9
Brian Bowen , Jr.
161 Slapp Creek Road
Amherst, Va. 24521

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

Bowles922@aol.com
01/03/2004 08:51 AM

To: R3 Mountaintop@EPA
cc:
Subject: Re: JOHN FORREN

Mr. FORREN,

I am opposed to Mountaintop Removal Mining and Valley Fills.....PLEASE stop this 1-9

"ENVIRONMENTAL NIGHTMARE".....

Deborah F. Bowles
Maryland

John Forren
U.S. EPA (3ES30)
1650Arch Street
Philadelphia, PA 19103

REC'D AUG 1 (

Dear Mr. Forren:

I oppose mountaintop removal and valley fills and any change in the buffer zone rule. I am disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protection for people and the environment. Scientific studies document the widespread and irreversible damage the coal industry is doing to our state and region. Mountain top removal ignores the public's demand for clean water, healthy environment and safe communities. 1-9 1-10

Please accept the wisdom of those who live in these areas and the scientific studies that support these correct insights. How many coal company CEO's live in Harlan County, Kentucky?

Thank you for considering the good of the people in the coal areas

Sincerely,
Gayle Brabec
1707 New Orleans Ct.
Lexington, KY 405405

Cc: President Bush

Mary Beth Bradley
Letter Date: 1/16/2004
City: Chattanooga State: TN Zip: 37401

Please don't backtrack on legislation that would leave our precious mountains open to being raped again. The "Sleeping Lady" in Anderson County, Tennessee is just beginning to heal from being marred by the coal company's. We need our mountains just to breathe. I went to Florida to visit my sister when her husband was in the Coast Guard. I spent a month with her during the summer. I thought I was going to die without my mountains. Those of us who were born here and want to die here, want nothing more than to wake up in these peaceful mountains knowing that they will always be there. My grandmother wrote a poem about the "sleeping lady" and it would have made her sick had she still been alive, to see what the coal companies did to her. Please don't make the same mistake twice. We are supposed to learn from our mistakes, not make them again. 1-9

Thank You,
Mary Beth Bradley

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

julia_brady@yahoo.com To: R3 Mountaintop@EPA
cc:
01/02/2004 06:16 PM Subject: Comments on draft programmatic EIS on mountaintop removal coal mining

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I object to the Bush administration plans to continue to let coal companies destroy Appalachia with mountaintop removal mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. 1-9

I can't believe that the Bush administration would address the problems caused by mountaintop removal coal mining through weakening existing environmental protections.

Sincerely,

Julia Brady
Rt 3 Box 274B
Buckhannon, West Virginia 26201

cc:
Senator John Rockefeller
Representative Shelley Capito
Senator Robert Byrd

John Forren
U.S. Environmental Protection Agency (3EA30)
1650 Arch St. Philadelphia, PA 19103

REC'D NOV 1 7 2003

Julia Brady
Rt 3 Box 274B
Buckhannon, WV 26201

Dear Mr. Forren;

I am writing to voice my opposition to mountain-top removal of coal. While I understand the importance of domestic energy production, mountain-top removal is not a viable alternative for supply of fossil fuels. I hear the people of my state when they express fear that their homes, businesses, even whole communities may be devastated by the long-term results of valley fills. Please consider our needs and the welfare of our environment when making federal policy regarding mountain-top removal. 1-9

Sincerely;

Julia Brady

Julia Brady

August 12, 2003

Mr. John Forren, US EPA
1650 Arch Street
Philadelphia, PA 19130

AUG 18 2003 REC'D

This letter is concerning the devastation impacting on West Virginia by the continuance of mountain top removal and the 'sham' of how the study to review said impact (Environmental Impact Statement) is being misused. This letter is a statement about stopping mountain top removal. 4-2

I am a native of West Virginia. I have lived all but one of my years in the state, a half-century of loving the mountains, river, and wildlife that abide here. Mountain top removal is not *surface mining*, or *above ground processes*, it is a plundering of all that makes this state the Mountain State or Almost Heaven. Mountain top removal is devastation that strips away all that is useful and leaves a waste land that is ugly and useless for meaningful purposes. It is a devastation that affects all that lay down stream from the ruined buried streams that feed our rivers and lakes. 1-9

I have seen in person the destroyed mountaintops and streams that are affected. I have watched as spill after spill fouls our streams and rivers while the effort of the agency of protection, works to take care of those removing mountains instead of taking care of the environment.

The rivers and lakes are the source of water that has sustained us in the past but which is increasingly likely to fail to do so in the future unless responsibility for our future is accepted. Responsibility must be accepted by the very agency that is supposed to protect but instead has been filled with the likes of Norton and Griles who have worked for coal in previous jobs and have shown no balance of judgment in performing their duties now. 5-4-2

What amazes me most is that anyone can ignore the obvious real value of West Virginia's future and then set about to destroy it! WATER! Water is not just a West Virginia issue! Everyone should care.

When the mountains are destroyed the water tables are directly destroyed by blasting and the feed of small streams to larger steams ends when the small ones are buried. One does not need an engineering degree to see what happens to those streams.

It makes no since to destroy what is valuable for the long time, for the short-term profit to those who seem unable to reason.

Many who have had a chance to do research on the report believe the report supports ending mountain top removal but those who sit in the Core of Engineers and the Environmental Protection Agency are pushing for a faster permitting process for the coal industry.

Remove those mountains as fast as you can! And then what? Nothing, that is what exists, no more coal jobs, no life sustaining water or forest, no soul sustaining beauty, no more profits. Nothing!

Excessive time and months of extensions passed before the thousands of pages of the EIS were made available for review. More time should be allowed for comment by the public and mountain top removal must be stopped, Now! 3-5

It is not the job of the EPA to be a political tool of any sitting administration of this country. End mountain top removal and save the future of West Virginians and the lives of many others who would benefit from the lumber, water, and beauty of this state. 1-9

Wake up!

Sandra L. Brady

Sandra L. Brady
PO Box 333
Charleston, WV 25322

Matthew Branch

----- Forwarded by David Rider/R3/USEPA/US on 01/06/2004 03:55 PM -----

Matthew Branch <mjbranch@yahoo.com> 11/06/2003 06:39 PM

To: R3 Mountaintop@EPA
cc:
Subject: mountaintop removal is not good

Dear Sir or Madam-
I am writing today to express my dismay of the mining practice commonly called mountaintop removal. I understand that our nation needs energy, but as long as having cheap energy overrules environmental concerns, our nation will continue to send itself on a path of self-destruction.
America was built and founded on energy-saving methods because that was what americans had to do. Well, the control of what we have to do is no longer in the direct hands of the majority, it is in the hands of the EPA, the government, and corporations. Profit driven corporations aren't going to worry about long-term environmental (and economic) loss. The government plays some role, but it gave the power of environmental protection to you, and it is your duty to enforce that issue. 1-9
I know whats at stake. Whats at stake is having a healthy environment for my grandchildren's grandchildren. In the end, I'm more worried about their basic survival than I am about having cheap electricity so I can watch more TV. I think that anyone who knows the facts would agree with that.
I am sorry I didn't print this letter out, I know that it is more likely to be read if it is on paper, but I didn't want to waste paper, and I fear my words today will fall on deaf ears. 3-3
I wish you foresight in making your decisions.

warmly,
Matthew Branch

Lee Bridges

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"t_igereyes@yahoo.com" <t_igereyes> 01/06/2004 04:51 PM

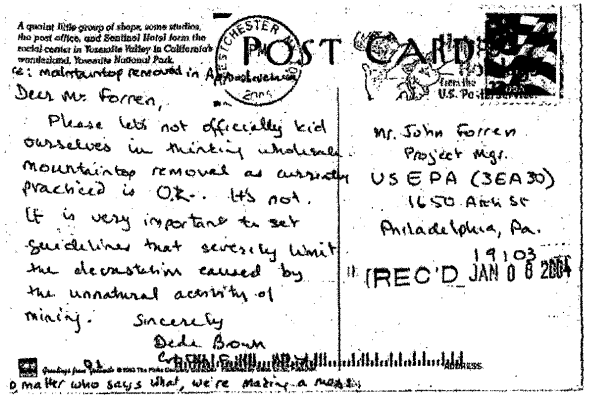
To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. Aside from its obviously disastrous environmental effects, these policies destroy permanently the glorious American landscape that inspired Jefferson, Madison, and our other forefathers to love this land. Our heritage is at stake. 1-9

Sincerely,
Lee Bridges
2142 Sacramento St.
Berkeley, CA 94702
t_igereyes@yahoo.com

Dede Brown


A quaint little group of shops, some studios, the post office, and Sentinel Hotel form the social center in Yosemite Valley in California's wonderland, Yosemite National Park.

re: mountaintop removal in Appalachia

POST CARD

Dear Mr. Forren,

Please let's not officially kid ourselves in thinking wholesale mountaintop removal as currently practiced is O.K. It's not. It is very important to set guidelines that severely limit the devastation caused by the unnatural activity of mining. Sincerely

Dede Brown

Mr. John Forren
Project Mgr.
US EPA (3EA30)
1650 Arch St
Philadelphia, Pa.
19103

REC'D JAN 0 6 2004

No matter who says what, we're making a mess

1-9

LeeAnn, George, Emily & Sarah Brown

DeliveredDate: 01/09/2004 10:40:37 PM

I am writing to express our view that the effect of mountain removal on the communities, families, and environment is destructive and unethical. The communities of West Virginia and Kentucky need the voice of reason and justice to prevail in this historical and controversial issue. The negative cost to the people of the coalfields cannot be justified for the sake of cheap and accessible coal.
Let our comments join with those of similar opinions... current mountaintop removal coal mining must be stopped and regulated with fairness and with a vision of the future for the generations who will follow.

10-2-2

Sincerely,
LeeAnn, George, Emily and Sarah Brown
15 Orchard Dr.
Buckhannon, WV 26201

REC'D NOV 2 6 2003

November 24, 2003

Shale Brownstein
Conservation Chair
Linnaean Society of New York
15 W 77 Street
New York, N.Y. 10024

John Forren
U.S. E.P.A. (3EA30)
1650 Arch Street
Philadelphia , Pa 19103

re: mountain top mining/ valley fill DEIS

Dear Mr. Forren:

We are a group of interested naturalists with more than 500 active members. The habitat destruction wrought by the proposed mountain top coal mining under 1000's of acres of mature hardwood forest in Ohio Pennsylvania Virginia and Tennessee will certainly cause immense damage to the Cerulean Warbler population. 8-2-2

Awesome scenes of mountain top removal involve more than the disappearance of the headwaters of mountain streams and the filling in of an adjacent valley. Many species are severely disrupted and the ecological damages will of necessity extend to a considerable distance from the mining operations. 9-2-2

This Appalachian region of the eastern United States will suffer ugly pockets of noise, dust, and disfigurement. The extensive losses already suffered will be greatly extended in ways that will even more permanently alter the land. We think that the current draft environmental statement has failed to properly assess the impact of the future changes, which are already being actively implemented. The immense area to be mined in this fashion is going forward without sustained serious consideration to the social and ecological losses that follow in the wake of this one time removal of available coal. 9-4-2

We plead for a moratorium.

We hope that reflection will give time for us all to study the conflicting claims of residents, visitors, and environmental hopes for the future of these irreplaceable mature hardwood forests. 1-9

Only the imposition of a moratorium on the mining can offer the chance to seriously modify the proposed coal extraction, which will change everything forever.

Sincerely

Shale Brownstein

Shale Brownstein for the Linnaean Society of N.Y.

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"mountinmike@hotmail.com" <mountinmike
To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining
01/06/2004 01:00 PM

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. It is ludicrous to continue with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-5

Please consider alternatives that reduce the environmental impacts of mountaintop removal and then please implement measures to protect natural resources and communities in Appalachia.

Sincerely,

Mike Brumbaugh
628 Grove St. NE
Albuquerque, NM 87108
mountinmike@hotmail.com

1682 National Av
Winchester, Va
22601

REC'D JAN 07 2004

January 2, 2004

Dear Mr Forren + EPA,

I am very concerned about mountaintop removal mining techniques. As a resident of the mountain areas of Virginia, I strongly support controls and prohibitions on this highly destructive mining practice. Removing mountains and placing

1-9

them in stream valleys is unbelievably destructive. Our convenience destroys the land forever. The DEIS rules need to prevent, contain, and mitigate such unfortunate practices. I support stronger rules to prevent this practice. Thank you.

1-9

Sincerely,
Mark A Bruns

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

"steve@ctlss.com"
<steve To: R3 Mountaintop@EPA
cc:
01/06/2004 01:00 Subject: Please Stop Destructive Mountaintop Removal Mining
PM

Dear Mr. John Forren, Project Manager,

Please amend the EPA's draft environmental impact statement to include sensible proposals and guidelines to restrict the effects of harmful mountaintop removal mining. I do not want coal companies to destroy Appalachia with mining practices that level mountaintops, eliminate forest acerage, polute streams and possibly destroy communities.

The current draft EIS explains that the environmental effects of mountaintop removal are widespread, devastating and permanent. Within the EIS, please propose restrictions on the size of valley fills, propose limits on the number of acres of forest that can be destroyed, propose protection guide lines for imperiled wildlife and safeguard the
local communities that currently depend on the region's natural resources for themselves and future generations. 1-5

I urge you to immediately amend the draft EIS accordingly.

Sincerely,

Stephen Bull
439 First Street
Greenport, NY 11944
steve@ctlss.com

----- Forwarded by David Rider/R3/USEPA/US on 09/26/03 02:49 PM -----

d b
cd86420@hotmail.c To: R3 Mountaintop@EPA
om> cc:
Subject: Comment to draft environmental impact statement
09/23/03 01:12 PM

It is my opinion that all mountaintop mining operations that dispose of waste into nearby valleys should be subject to National Pollutant Discharge
Elimination System permitting requirements. Dredge and Fill requirements
are not stringent enough for this mining technique. 5-7-1

Sincerely,

Doug Burge, P.G.
1043 Art Hill Pl
Saint Louis, MO 63139

Get MSN 8 Dial-up Internet Service FREE for one month. Limited time offer--
sign up now! http://join.msn.com/?page=dept/dialup

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"burgermkop@msn.com" <burgermkop 01/06/2004 01:12 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining.

When Scripture discusses making hills and valleys level, I don't think that's what Our Creator had in mind. 1-9

Sincerely,
Mark Burger
1042 Gunderson Avenue
Oak Park, IL 60304
burgermkop@msn.com

DeliveredDate: 01/05/2004 07:30:25 PM

Who can justify blowing off the top of mountains to remove fuel?? How can this even be thought to be a civil act? This is barbaric
and not only affects the wildlife, the streams, the fauna, but also the Appalachian people and their culture. Mountains are
spiritual places, and this processs of blasting shaking and disfiguring the mountains is deeply unsettling to the people the
animals and the earth itself and results in many negative outcome. Please stop the bombing of our ancient mountains and the
pollution of our streams. Their is no reason and no rationale for this process of coal extraction. PLEASE STOP!!!!!! 1-2

Gail Burgess, WV and Ohio

Moss Burgess, flood Chairperson Moss Burgess
Box 66
Wilkinson, W.Va 25653
304-752-1596

Thank you for an opportunity to express our views.

1. We live on Main Island Creek in Logan County and in 1996 we were flooded by a four inch rainfall that fell in the County. The water level was the highest since I moved there back in the early 1950,s.
2. At permit hearings a couple of years ago people who lived at the foot of the Mountain Top Removal sites told how the water came off the mountain and washed block walls down with gullies of mud and debris.
3. We are not against mining because we believe the coal can and should be mined using auger or contour methods, creating more jobs. Many of us come from mining families. Mountain Top Removal and the timber clearcutting creates mud and debris which fills our streams. This debris is presently in our streams from previous MTR and Clearcutting operations and builds up creating higher flooding water levels. Mountain Top Removal eliminates jobs.
4. Further our flood insurance rates have climbed so high that those on fixed incomes can't afford it and with these new operations the property values will continue to fall and new flooding potentials.
5. Even the Governor's hand picked flood study states that these operations contributes to flooding. They also recommend proper building of valley fills. We expect our property to be protected.
4. If You represent the people then look closely at the lay of the land in determining the effects of Mountain Top Removal mining. We live in Southern West Virginia an area that has steep mountains. If these corporations advertises themselves as a good neighbor, then the first thing they would do is to use their massive equipment and dredge our creek of their previous mud, silt, and timber debris caused by previous operations. They could place this back on the sites they are operating on. Our politicians, I should say your politicians, have promised us dredging would be done would be done, over 2 years ago-Nothing-lies.
5. If you want to show your support that you are doing the right thing, then select a group of involved citizens and permit them from time to time to monitor these operations. We want men to work, but we believe the coal can be mined, by using contour and auger methods, which keeps some vegetation which can hold water back, thus protecting communities downstream, but profits over homes and lives, should not be secondary. Of course we believe the decision has already been made, but we shall be vigiliant. We urge the use of alternative mining methods to Mountain Top Removal, which can create more jobs. Thank You!

17-1-2

1-9

----- Forwarded by David Rider/R3/USEPA/US on 09/04/03 05:13 PM -----

RONALD F BURKHART
<RFBURKHART@msn.c
Mountaintop@EPA
om>
09/30/03 02:51 PM

To: R3

cc:
Subject: Mountain top
mining

Dear Mr. Foren,
I do not support mountain top mining.
I realize jobs are at stake. However, I also know jobs in this industry have been declining for years.

The environment is also at stake. I support working toward alternative energy sources such as sun and wind. The money, effort and will could be rechanneled into these areas and jobs offered in these new energy sources. Of course the transition wouldn't be easy, but then nothing worthwhile ever is. 1-9

Please make efforts in this direction.

Thank you,
Linda Burkhart

9 Meadow Brook Rd.
Frankfort, Ky 40601
January 18, 2004

REC'D JAN 23 2004

John Forren
U.S. EPA (3EP30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren:

I am writing to you to express my concern about the proposal to do away with the "buffer zone" rule that protects streams from the impact of coal mining. I oppose mountaintop removal and valley fills and any change in the buffer zone rule. I am especially upset that the federal government is not paying more respect to its own studies which vividly document the harm of mountaintop removal and valley fills. Our environment is our legacy to our children. When we don't protect it, we rob them of an essential 1-10

part of their future.
Thank you for considering my concerns.

Sincerely,
Ricky Burks

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

Rick Cameron
<cameron@hvi.net> To: R3 Mountaintop@EPA
cc:
12/30/2003 06:11 Subject: Maybe we should just level all the mountains
PM

Sir:
I humbly submit that, in view of the EPA's obvious rubber-stamping of every destructive order from the Bush gang, the agency should be redubbed the "EDA", the Environmental Destruction Agency. Since you are personally presiding over the dismantling of a century of efforts to protect our natural heritage, you can rest assured of your place in history. You won't be forgotten, I promise you.

With all due respect,

Rick Cameron
Woodstock, NY

Dear Sir:

Please do NOT weaken environmental protections for the harmful practice of mountain top mining.

1-10

Season's Greetings

Beth Campbell

Ms. Beth Campbell
111 Lewis Ave
Grants Pass, OR 97527-5434

REC'D JAN 0 2 2004

I ♥ Rivers

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

Ruth Campbell <ruthc73@hotmail.com> 01/06/2004 01:32 PM

To: R3 Mountaintop@EPA
cc:
Subject: strip mining in Appalachia

Dear Sirs:

I urge you to reconsider the proposal to do strip mining in the Appalachian mountains. Whole communities, streams and wildlife will be destroyed. Please take steps to prevent this unnecessary devastation. 1-9

Thank you.

Ruth Campbell
member of NRDC

Pauline Canterberry
P O Box 304
Whitesville, W, V. 25209
Ph: (304) 854-1619

REC'D AUG 2 0

Mr. John Forren, US EPA
1650 Arch St.
Philadelphia, Pa. 19130

Re: Opposing Mountaintop Removal Mining

Mr. Forren,

Mountaintop Removal Mining has proven itself to be an irresponsible method of removing coal from the Appalachian Mountains of West Virginia leaving far to much destruction, destitute and destroyed land polluted with Valley Fills and Slurry Impoundments.

It has destroyed our Hardwood Forest and Wildlife habitats, it is destroying Appalachian Culture and Heritage its irresponsible method has ravished the Hollows and Valleys leaving them in ruin, it has devasted the Citizens who dwell in these Valleys destroying their Homes and Property, it contaminates the Streams and Rivers, it pollutes the Air, it causes flooding, it destroys and kills the innocent, it is a high-risk health hazard, it is no longer an asset to the State of West Virginia. 1-9

The reccomendations in the EIS statement is just another FIX for the Coal Corporates to continue their devastation in the West Virginia Mountains that will Swell the greed of a few and support Coal Corporate gain, while the State of West Virginia sinks lower still into total despair.

Come into the Southern Coal Fields of West Virginia and see the true story of Mountaintop Removal Mining, then you will vote to end this injustice.

Sincerely,

Pauline Canterberry

Pauline Canterberry

Nancy T. Carbonara, Ph. D.
Licensed Psychologist
Child Development Specialist

615 Washington Road, Suite 302.•Pittsburgh, PA 15228-1909
(412) 343-8663

REC'D JAN 0 8 2004

January 4, 2004

Mr. John Forren
U.S. Environmentql Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I am very concerned to hear that the Bush Administration plans to continue to let coal companies use mining practices that level mountain tops, wipe out forests and streams, and devastate both wildlife and human communities in the Appalachian region. 1-9

I find that very puzzling, since it is my understanding that, according to the administrations' draft Environmental Impact Statement on mountain top removal coal mining, that type of mining has devastating, widespread, permanent and irreversible effects on the environment.

Again, it is my understanding that the Bush administration's "preferred alternative" for addressing the problems of mountain-top-removal mining is to weaken existing environmental protections...thus ignoring the results of the administration's own studies detailing the damage caused by that type of mining. 1-10

Please consider what you may be able to do to persuade the administration to re-think their position, and consider alternatives that at least reduce the dreadful, negative effects on the environment and on the people of Appalachia of weakening environmental protections. I come from a coal mining family and I know that that region, and those people, have suffered enough.

Thank you for your attention to these heartfelt concerns.

Sincerely yours,

Nancy T. Carbonara, Ph.D.

Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:47 PM -----

Enid Cardinal
cenidic@hotmail.c om>
To: R3 Mountaintop@EPA
cc:
Subject: Comments on draft EIS on mountaintop removal mining
01/02/2004 03:10 PM

January 2, 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear John Forren,

Although not surprised, I am upset to learn that the Bush administration
plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. This is especially disturbing in light of the increasing concern over the availability of fresh water in many of these
areas. It would also seem that such practices would escalate the number
of incidences of natural disasters in the areas, i.e. mudslides and forest fires.

There has been a blatent disregard by this adminstration to the value, both economic and psychological, of natural resources. Not to mention a tendency to ignore existing requirements of environmental regulations such as NEPA. According to the administration's draft Environmental Impact Statement(EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on
the region's natural resources for themselves and future generations. 4-2

The intention of the NEPA's EIS requirment for all government operations, as court rulings have continually upheld, is to provide more
environmentally benign alternatives to proposed projects. It is not the intent to merely waste financial resources in the compilation a piece of
liturature that will be ignored. I do not believe that no viable alternative exists, as the current course of action suggests. 4-2

The Bush administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal mining is to weaken existing
environmental protections. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including:

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal;

- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species;

- Without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed
by mountaintop removal mining. 1-5

In light of these facts, I urge you to consider alternatives that reduce
the environmental impacts of mountaintop removal. Thank you for your consideration of this important issue.

Sincerely,

Enid Cardinal
2284 Mercer St
Baldwinsville, NY 13027
USA

Mary Lou Carswell

----- Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:49 PM -----

"mlcarswel@aol.co
m" <mlcarswel To: R3 Mountaintop@EPA
cc:
01/06/2004 12:45 Subject: Please Stop Destructive Mountaintop Removal Mining
PM

Dear Mr. John Forren, Project Manager,

I am just one person who cannot pay anyone big dollars to protect the environent. But I do have one vote and a voice that is continually educating folks on the destructive policies advocated by the Bush Administration toward the protection of our invaluable land, diverse wildlife and the tremendous beauty of what is left of our pristine wildnerness in the United States of America. I am of the mindset that we can have it all, meaning whats left of this landscape and also a productive, sustaining democratic life that does not bow down to corporate demands for less legislation concerning the protection of our environment. You must immediatley amend the draft EIS to protect the future of our country and the heritage. We cannot continue to devalue our mother earth to blow off mountain tops that will erode streams and create a eco system in direct conflict with what is natural. 1-9

Sincerely
Mary Lou Carswell

Mary Lou Carswell
garden dr.
avon, OH 44011
mlcarswel@aol.com

Jenny Casey

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"jcmsw@hotmail.co
m" <jcmsw To: R3 Mountaintop@EPA
cc:
01/06/2004 04:27 Subject: Please Stop Destructive Mountaintop Removal Mining
PM

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-5

The Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. I urge you to immediately amend the draft EIS accordingly. 1-7

Sincerely,

Jenny Casey
43 Maple St. Ext.
Kent, CT 06757
jcmsw@hotmail.com

Mr. John Forren, US EPA
1650 Arch Street
Philadelphia, PA 19130

AUG 18 2003

August 12, 2003

RE: Mountaintop Removal in WV

Dear Mr. Forren:

Before I left West Virginia for the wild, wild west, I was saddened to see the majestic mountains of WV being slaughtered one by one so the coal companies could get to a few tons of coal. It was a disgusting sight then and it is a disgusting sight now.

Now I'm in the west where I only see it when I fly home to my beloved WV. What a sight to see as you fly over what once was a lush green forest that has been transformed into a moonscape on top of the mountain.

I admire the citizens of WV who still think they can fight against the coal industry in WV. Maybe I'm getting old or just plain tired from all the efforts I put in to make myself and others heard. God bless them and give them strength because we all know that the coal industry in bed with the powers that be...can't name names anymore because I'm not around to see first hand.

I can say that I pray (and I'm not too much given to prayer) that the "powers that be" wake up one day to find their front yard turned into a slag pile or that their family cemetery is bombarded by flying rocks from a "surface operation". Here's an idea. How about you fellers change places with the people who are forced to live in the middle of your mess and see how you like it. Let's see how long you are willing to stand by while your well dries up and your children can't play in the yard without safety gear!!! 1-9

Sure, it's a free country and I'm sure the coal companies would (and are) more than generous in their offers to buy land and relocate the occupants somewhere else...but a free country also is supposed to guarantee the freedom of those same individuals who want to live in their homes undisturbed or without fear that a boulder is going to crash thru their roof as they and their children sleep.

Come on, guys, isn't it time that you realize that you can't undo what has been done but you have the power to change the future?

Let's leave what mountains that are left in WV. Once they are gone, there is no turning back the page.

Respectfully,

Sidni S. Cassel

Sidni S. Cassel

3419 W. Cinnabar Avenue

Phoenix, AZ 85051

61 Joseph Rd.
Premium, KY 41845-9024

REC'D DEC 2 9 2003

December 24, 2003

John Forren
U.S. EPA (ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Sir:

I oppose mountaintop removal and valley fills and any change in the buffer zone rule. There's a principle involved that officials with EPA tend to ignore the public and cave in to vested interests of industry. It seems also that such connivance has the cooperation of the White House. 1-10

It's significant that even within EPA some officials have advised that EPA rules should be strengthened, not weakened.

Sincerely yours,
Don Cassidy

---- Forwarded by David Rider/R3/USEPA/US on 01/23/2004 09:42 AM ----

Philip Castevens
<pgc512@yahoo.com> To: R3 Mountaintop@EPA
cc:
Subject: I AM AGAINST MOUNTAIN TOP MINING REMOVAL !
01/20/2004 04:16 PM

Please protect our Appalachian mountains.

Thank you.

Philip Castevens
Winston-Salem, NC 27103

1-9

REC'D JAN 0 5 2004

REC'D JAN 0 5 2004 Jan 2. 2004

My Old Homeplace is on upper Mud River Rd, Arch Coal Co. is working all around it. Our property was in several shares. After harassment and lies, I sold my share to them, which was my mistake. now they are trying to force the others to sell. How can they treat people so awful, blasting the mountains, Covering the streams and Killing the wildlife.

please help us stop this

Billy Caudill
Box 30 A
Millwood, WV 25262

10-2-2

REC'D JAN 0 5 2004 Jan 2, 2004

My Home place was on upper Mud River Rd., where Arch Coal Co. is Working. The homeplace is in Shares, After much Aggravation, lies and harassment, I sold them my part, which I regret, now they are trying to force other family members to sell. We are against Mountaintop Removal mining, please help us stop it. How can they sing O those WV Hills, they are blasting them away, every day.

Herman Caudill
15 Thompson St.
Madison, WV 25130

1-9

REC'D JAN 0 5 2004

Jan 2, 2004

Mountaintop Mining Study

I am a retired School Teacher in my late seventy's, have lived in this area my entire life, until Arch coal forced me out of my home place, I did not want to sell home. I could not put up with the dust, noise cutting of the trees and everything else that went on.

It's a shame what the coal Co. is doing to people, and no one seems to care, they are ruining our mountains, streams and Valley's.

It's a shame, they are tearing WV hills all to pieces.

Hope it can be stopped now.

Therma Caudill
Leick Creek, WV
ph 304 369 1088

Former address
Upper Mud River Rd
Sparkbrulle, WV, Lincoln Co.

10-4-2

1-9

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"dwchandl@humboldt1.com" <dwchandl 01/06/2004 12:36 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

It is no longer acceptable to trade environmental degradation for non-renewable energy. I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining.

1-9

Sincerely,
Daniel Chandler
Dan Chandler
436 Old Wagon Road
Trinidad, CA 95570
dwchandl@humboldt1.com

----- Forwarded by David Rider/R3/USEPA/US on 09/26/03 02:49 PM -----

dchannel78@netscape.net To: R3
Mountaintop@EPA
cc:
dchannel78@netscape.net
09/25/03 08:27 PM Subject: reg3/mtntop

09/25/03

I was born and raised in West Virginia. As a native of WV, I am fully aware of the wrong that was done to our mountains and streams. All you have to do is look around to the different areas and you will find the scars to our land and pollution to our clear water mountain streams that
still remains after years of healing.

Again, we are faced with shortsighted government officials, so eager
to please big business with quick and easy access to our natural resources that they will sell out our state and its people.

The continued destruction of our state must stop. Mountain Top Removal Mining must be halted and laws enacted to ban all such procedures immediately. Certainly, there is no need to conduct a three-year study for the "raping of our land" by Officials from other States.

My Dad spent his lifetime mining coal. I grew up from boyhood in different mining towns and I know there are ways to mine coal without such a huge environmental impact.

West Virginians have already a history of living among the debris abandoned by "fly by night Companies" that were sanction by poor laws enacted for "special interest" by local government.

It is time for all government officials that are associated with any entity of the EPA to live up to their name--Environmental Protection Agency. Lets keep West Virginia beautiful and do what is right for the people of West Virginia.

1-9

Sincerely,
Dorsey Channel
dchannel78@netscape.net

McAfee VirusScan Online from the Netscape Network.
Comprehensive protection for your entire computer. Get your free trial today!
http://channels.netscape.com/ns/computing/mcafee/index.jsp?promo=383397

Get AOL Instant Messenger 5.1 free of charge. Download Now!
http://aim.aol.com/aimnew/Aim/register.adp?promo=380455

7018 Green Vista Ct.
West Hills, CA 91307
Jan 20, 2004

REC'D JAN 2 6 2004

Dear Mr. Forren,

Current plans to let coal companies destroy Appalachia with mining practices that level mountain tops is unacceptable. This wipes out forests, streams in the valley below. This is a real disgrace. Do we really want to destroy our planet for the almighty dollar. We must protect our planet for our children, grand children and beyond

I implore you fight against this attrocious damage to our planet.

1-9

Sincerely yours.
John W. Chase
John W. Chase

REC'D JAN 2 6 2004

7018 Green Vista Circle
West Hills, CA 91307
Jan 21, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren;

How can we prevent the irreparable harm being done to our environment by the Bush administration? I write at this time in support of the EPA study which indicates the serious harm that can occur by not heeding their concern. 1-9

Thank you

Sincerely,

T.J. Chase

T.J. Chase
7018 Green Vista Cir
West Hills CA 91307

REC'D AUG.

416 Logan Street
Frankfort, KY 40601
August 23, 2003

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I am writing against the recommendations in the U.S. government's EIS report on mountaintop removal for the mining of coal. The report itself documents the great destructiveness of this practice for water quality and forest ecosystems, but none of the three alternatives that it proposes will reverse this destruction. Instead, they weaken existing regulations, including the important stream buffer zone. The recommendations can only serve the short-term interest of the coal industry: not the immediate and long-term needs of the people of Appalachia for clean water, sustainable jobs, sustainable development and secure homes. 1-5

For administrators far removed from the mining, this issue may appear abstract. I live a few blocks from the Kentucky River, which flows brown from erosion from destructive mining practices at its headwaters, while the people of Appalachia see their land literally blasted away beneath them. Appalachia has the potential for becoming a national center for tourism and wilderness recreation, but this possibility is being stolen from us and all future generations. 1-9

I urge the E.P.A. to reject the EIS recommendations as a contradiction to the evidence gathered by its own reports.

Sincerely,

Louise Chawla

Louise Chawla

REC'D AUG 2 8 2005

Lexington Herald Leader
I was appalled to read that the environmental agency is now considering mountain top removal (strip mining) for coal.
Our country is coming apart at the seams now. Why add insult to injury!
Do those in power realize what the consequences are, not only now but also for years to come to our mountains and the folks that live in those areas.
Homes are destroyed by mud slides and flooding time after time. Nature took care of the problems of erosion and disasters until the strip mining was done several years ago. It is taking years to recover and repair what was lost then.
It will not help the economy for the ones that need the help but only line the pockets of the big corporations.
Our roads, railroads, education and energy are being neglected, as is everything else in our own country. We know where the funds are going but isn't it time we took care of our own?
I am disappointed in our representatives for not making our state a priory and put party lines on the back burner for just a little while. Kentucky people have elected them and their loyalties should be to them.
We citizens must open our eyes and see the havoc that is upon us. Our country we once knew is slipping away!
We are Americans.
We have shown strength before.
Let us speak out and get involved!
Katherine M. Green

Copy to:
John Forren
U.S. EPA (3E530)
1650 Arch Street
Philadelphia, Pa.19103

Rep. Ernest Fletcher
U.S. House of Representatives
Washington, DC 20515

Pres. George Bush
The White House
1600 Pennsylvania Ave.
Washington, DC 20500

DeliveredDate: 01/20/2004 11:29:57 AM

As a citizen of Kentucky, where the beauty of our Appalachians are being destroyed by mountain top removal, I am writing to urge the EPA to heed the warnings in its own EIS report regarding the extreme environmental damage done by this method of mining, and to ban rather than encourage mountain top removal. I am also writing to urge the protection of our waterways by keeping the buffer zone rule along streams. 1-9 1-10

To enrich a few mining corporation owners, the immediate quality of life in Appalachia and its long-term economic and cultural resources are being sacrificed by mountain top removal.

Louise Chawla
416 Logan Street
Frankfort, KY 40601

Robert Cherry

City: Boone
State: NC

Letter Date: 1/11/2004
Zip: 28607-5313

I am writing to you to express my opposition to any changes in regulations that would weaken environmental protection from mountaintop mining. I reviewed the DEIS on your website and find that none of the Alternatives provide adequate protection to the people who live nearby who would be affected by these activities and no alternative would provide sufficient protection to the impacted biological resources. I am concerned that the emphasis of the DEIS appears to be to continue mountaintop removals without seriously considering its impacts. Filling valleys will alter streamflows and will endanger those who live downstream with increased risk of flooding. Ground water is likely to be contaminated from mining activities and water sources are less secure. People who live in the area need better protection than is provided by the alternatives in this DEIS. As an aquatic biologist this DEIS glosses over problems to our aquatic resources that result from spoils being dumped into and filling entire watersheds. The nature of the soils cause long-term and long-distant negative impacts on aquatic fauna, I don't feel that your DEIS adequately considers endangered species. References that minimize impacts to wildlife do not adequately differentiate between common fauna and T&E species. While some animals may benefit from conversion of forested mountaintops to level grasslands these species typically are not species that are rare and in need of protection. I am concerned about the lack of buffer strips from the preferred alternative. Many studies have shown that loss of streamside buffers have significant environmental impacts. These impacts include increased sedimentation, increased water temperatures, altered stream flows and loss of wildlife habitat. Please add an alternative that adequately addresses the biological impacts of mountaintop removal. None of the alternatives that are presented in the DEIS does this and are therefore inadequate. Thank you for your attention to this matter.

1-5

6-6-2

12-22-03

Mr. John Farren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, Pa 19103

REC'D DEC 29 2003

RE: Mountaintop Strip Mining

Dear Sir:

Mountaintop strip mining is somewhat different than strip mining as I knew it in the 30's in southern Illinois coal mining regions.

Whether you blast the earth away or dig it up in deep trenches (pits) the results are the same – devistating to the countryside. The mining operators left the land scarred and fit for nothing.

The pits filled with rain water and became brackish and became a deadly attraction for both young and older swimmers alike -- many drowned.

I urge you to reconsider the practice of mtn. top strip mining and the fouling of the earth, streams and surrounding countryside. Do not weaken environmental protections (EIS) for the benefit of these mining operators and their profits. They will continue their "earth fouling" operations as long as they are allowed to – the public "be-damned". Do something before time runs out Jan. 6, 2004.

Aiding the environment is the reason for EPA's existence. Justify it!

1-9

1-10

Arthur H. Childers
1032 W. Southcliff St.
San Dimas, Ca. 91773

cc: American Rivers
Washington, D.C.

Susan Cho

---- Forwarded by David Rider/R3/USEPA/US on 12/11/2003 04:40 PM -----

Susan AR Cho
<pantherapardus4@planet-save.com>
11/23/2003 07:42 PM

To: R3 Mountaintop@EPA
cc:
Subject: 21212 Stop Mountaintop Mining

November 23, 2003

John Forren, Environmental Protection Agency
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am opposed to the alternatives evaluated in your May 29, 2003 draft Environmental
Impact Statement (EIS).

There is a plethora of evidence of the serious, irreversible environmental harm
caused by mountaintop mining. Yet I see no action being taken to minimize that
harm.

Some of the steps outlined even go in the wrong direction, such as eliminating
the Surface Mining Control and Reclamation Act's buffer zone rule.

Please find options that will minimize the enormous environmental and economic
damage caused by mountaintop mining and valley fills.

Thank you for your consideration.

Sincerely,

Susan AR Cho
310 Gittings Ave, 2nd flr
Baltimore, MD 21212-2524
USA
pantherapardus4@planet-save.com

1-5

Martin Christ

----- Forwarded by John Forren/R3/USEPA/US on 12/15/2003 10:26 AM -----

Martin Christ
<mchrist@labs.net>
12/15/2003 10:20 AM

To: John Forren/R3/USEPA/US@EPA
cc:
Subject: Mountain Top Removal

Dear Mr. Forren,

I am writing to oppose the proposal to change the stream buffer zone rule
that prohibits mining activity within 100 feet of streams. This rule should
be strictly enforced for valley fills and in all other cases.

I further urge that the EPA reexamine its original mission, and enforce
laws that prevent the burial of streams and the filling of hollows.

Martin Christ
RR 1 Box 230A
Independence, WV 26374
mchrist@labs.net

1-10

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"pianomanjerry@aol.com" <pianomanjerry
01/06/2004 08:21 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. If this legislation passes it will destroy much of the local environment, several people will be forced out of their homes and stripped of the resources they depend on to survive. 1,200 miles of streams and hundreds of miles of forests and mountains have been destroyed. I know that this as well as several other policies of the Bush administration are appeasing campiagn contributors and corporate criminals did somebody say special interest. Hasn't the Bush administaration caused enough senseless destruction in Iraq? I guess not. 1-9

Jerry Ciolino
1240 Siggson Ave
Escondido, CA 92027
pianomanjerry@aol.com

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"matt@occasionsdjs.com" <matt
01/06/2004 12:27 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Please amend the EPA's draft environmental impact statement concerning mountaintop removal mining. I will hope the Bush administration accountable for the vast destruction of the environment and communities along the Appalachian Mountains. 1-9

The permament destruction of the environment from mountaintop removal mining must be stopped.

Sincerely,

Matthew Cleveland
64 Beech Lane
Elizabethtown, PA 17022
matt@occasionsdjs.com

DeliveredDate: 01/04/2004 03:41:04 PM

We are opposed to mountaintop removal. The short-term gain is not worth the certain and potential environmental consequences. 1-9
John & Tammy Cline

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

"mbclingman@grdominicans.org" <mbclingman 01/06/2004 04:24 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I am the Councilor for Mission and Advocacy of the Grand Rapids Dominican Sisters. We have had Sisters serving in Appalachia for many years and on their behalf I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities.

We would submit the following letter from the Catholic Conference of Kentucky concerning this matter as expressive of our own beliefs. Statement on Mountain Top Removal in Eastern Kentucky December 10, 2002

Dear Friends in Christ,

We write you on the occasion of your ecumenical gathering for a "Prayer on the Mountain" in Letcher County, Kentucky. Our other obligations prevent us from traveling to the mountains to be with you today, but we send our prayers of support and words of encouragement. 1-9

We know from people ministering in Appalachia and media reports about the environmental and human devastation caused by the abusive strip mine practice known as "mountain top removal." This practice can damage the foundations of homes and destroys the wells of people living in nearby communities. It dumps millions of tons of earth and rock into valleys ruining springs and head waters of creeks essential to the animal and plant life for miles downstream. It can destroy graveyards and home places and alters communities reverenced by generations of families who trace their ties to that land. We understand that McRoberts itself has suffered five devastating floods in 18 months, and many other areas of Appalachia have faced similar destruction.

As we reflect on Sacred Scripture we believe that the care of creation represents a spiritual act. We remember that God finished the work of creation and "found it very good" (Gen. 1:31.) Then God put humanity in the Garden of Eden, a symbol of the whole world, "to cultivate and care for it" (Gen. 2:15.) Creation reflects the beauty of God and humanity becomes a co-gardener with God.

In addition, since the world belongs to all, decisions about the world's use must be determined by a concern for the common good of the whole human family. Pope John Paul II joining his voice with a growing chorus of ethical people throughout the world proclaims the right to a safe environment must eventually be included in an updated U.N. Charter of Human Rights. That your "Prayer on a Mountain" takes place on December
10, International Human Rights Day, symbolically connects the respect for the earth with the protection of our human community.

We pray that society will produce its necessary goods and services without destroying God's gift of creation. Unfortunately, the practice of economics frequently exploits both the land and the workers in a rush for quick profits. Society must reject the false dichotomy of jobs versus the environment and creatively find ways allowing workers to earn their livelihoods while respecting creation. May God shed blessings on you as you pray for the restoration of creation and the uplift of your communities.

Yours in Christ Jesus,
Thomas C. Kelly, O.P., Archbishop of Louisville
John J. McRaith, Bishop of Owensboro
Roger J. Foys, Bishop of Covington
Reverend Robert J. Nieberding, Lexington Administrator

Joining my brothers I would urge you to drop plans to make it easier for mining companies to engage in mountaintop removal and to instead limit the harmful effects of this devastating practice.

Sincerely,
Sister Mary Brigid Clingman OP
Dominican Sisters, Grand Rapids MI

Sister Mary Brigid Clingman OP
2025 E. Fulton
Grand Rapids, MI 49503-3895
mbclingman@grdominicans.org

REC'D DEC 29 2003

December 23, 2003

Mr. John Forren
Region 3
U. S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

REF: Draft Mountaintop Mining Environmental Impact Statement

Dear Mr. Forren:

I'm writing as a professional environmental scientist, who grew up in West Virginia, and a former employee of the U. S. Bureau of Mines (now defunct) who has seen mountaintop mining first hand and therefore knows the devastation of the environment they represent. As a result, I am deeply concerned regarding Bush administration plans to continue to let coal companies negatively impact and possibly destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below.

As I understand it, the draft Environmental Impact Statement (EIS) clearly indicates the environmental effects of mountaintop removal coal mining are devastating and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams; no limits on the number of acres of forest that can be destroyed; no safeguards for imperiled wildlife; and no safeguards for the communities that depend on the region's natural resources. 1-5

Remarkably, it appears the draft EIS states preferred alternative for addressing the enormous problems caused by mountaintop removal coal mining is to weaken existing environmental protections. The draft EIS proposes streamlining the permitting process, allowing mountaintop removal and associated valley fills to continue at an accelerated rate. The draft EIS also suggests doing away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams unless it can be proven that streams will not be harmed. 1-10

Instead of allowing mountaintop removal to continue unabated and even get worse, I strongly urge you to finalize the EIS by selecting alterative(s) which clearly and effectively reduces the environmental impacts of mountaintop removal and which requires implementation of those measures needed to protect natural resources and communities in Appalachia. In particular, I urge you to select an alternative(s) which provide for restrictions on the size of valley fills in order to reduce stream and forest loss. These alternatives must be evaluated for individual projects as well as regionally so that the cumulative impact of the destruction caused by mountaintop removal is addressed. 1-7

Sincerely,
Jerry L. Coalgate
6588 Medinah Lane
Alexandria, Virginia 22312

----- Forwarded by David Rider/R3/USEPA/US on 01/09/2004 03:54 PM -----

mbcole@crssa.rutgers.edu To: R3 Mountaintop@EPA
cc:
01/06/2004 04:07 PM Subject: Mountaintop Coal Mining - Draft EIS

Project Manager John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Project Manager Forren,

I have a master's degree in Forest Science from Yale University and a PhD in Ecology from Rutgers University. For many reasons, I find mountaintop coal mining objectionable. The method destroys the local, native, endemic habitat of the actual mountaintop. This loss alone deprives us forever of the high elevation, and often relict ecological community. But, as there is no place to go from a mountain but downhill, it also has devastating effects far downstream on water quality, habitat quality, and quality of life for the people living in the former shadows of the mountain. 1-9

I have colleagues who have studied the ecological effects of mountaintop coal mining in Appalachia. The take home message from our current knowledge in ecology and the emerging applied subdiscipline of restoration ecology is that mountaintop coal mining is ecologically extremely harsh and that we cannot return such a site to predisturbance conditions. It eliminates headwater streams, which are sometimes ephemeral and intermittent (ecologically critical!), essential habitat for numerous invertebrates and their ecological communities. We cannot thoroughly restore these sites to have the same physical, chemical, biological, ecological and functional qualities to pre-mining.

According to the administration's draft Environmental Impact Statement (EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations. 1-5

Remarkably, the Bush administration's "preferred alternative" for addressing the enormous problems caused by mountaintop removal coal mining is to weaken existing environmental protections. The draft EIS proposes streamlining the permitting process, allowing mountaintop removal and associated valley fills to continue at an accelerated rate. The draft EIS also suggests doing away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams unless it can be proven that streams will not be harmed. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including: 1-10

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal

- direct impacts to streams would be greatly lessened by reducing the size of the valley fills where mining wastes are dumped on top of streams

- the total of past, present and estimated future forest losses is 1.4 million acres

- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species

- even if hardwood forests can be reestablished in mined areas, which is unproven and unlikely, there will be a drastically different ecosystem from pre-mining forest conditions for generations, if not thousands of years

- without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining

The Bush administration's "preferred alternative" ignores these and hundreds of other scientific facts contained in the EIS studies. In light of these facts, the Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. 1-5

Thank you for your time.

Sincerely,

Marlene Cole
258 Massachusetts Ave
#4
Arlington, Massachusetts 02474

cc:
Senator Edward Kennedy
Senator John Kerry
President George W. Bush
Vice President Richard Cheney
Representative Edward Markey

Delivered Date: 01/06/2004 11:59:45 AM

As a resident of the mountains in Eastern Kentucky, I am writing to express my anger and frustration with the way the EPA under the Bush administration has handled this issue. I oppose all mountain to0p removal and stream fills because of there impact of the lives of residents in the area and because of the negative impact on the region in terms of the "tourist attraction value" of our region. We are working with our Congressman Hal Rogers to both clean up the trash in the area through his Project Pride Program and to attract visitors through the Southern and Eastern Kentucky Tourism Development Association--also a project of our Congressman. No one wants to live in an area torn up by bulldozers with filled in astreams and ruined water supplies--who would want to visit there?!

1-9

11-7-2

Sincerely--Marian Colette, Box 3, Emlyn, Kentucky 40730

----- Forwarded by David Rider/R3/USEPA/US on 11/20/2003 02:57 PM -----

Michael Compton <luxilus@hotmail.com> 11/18/2003 11:52 AM

To: R3 Mountaintop@EPA

cc:

Subject: Save Streams from Mountaintop Mining

November 18, 2003

John Forren, Environmental Protection Agency
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

How does the EPA expect to uphold the Clean Water Act if mountain top removel (MTR) and "hollow filling" are allowed to continue? The distrurbance of the land creates irretrievable stream systems because the sulfate levels are unnaturally high. This means, conductivity levels are excessive and the aquatic communities, fish and macoinvertebrates, are severely altered/impaired resulting in streams that do not meet thier aquatic-life-uses. Because of this, MTR is a crime against the Clean Water Act. FYI: the issue of high conductivity levels needs to be brought to the public's attention and everybody needs to realize aquatic communities are altered when levels reach a certain threshold and the activities of MRT automatically increase conductivity levels once the geology is disturbed. Use this information to write a more appropriate response to the EPA.

5-5-1

I am opposed to any changes that would weaken the laws and regulations that protect our rivers and streams from the effects of mountaintop mining and valley

1-10

fills. As a result, I am opposed to each of the alternatives evaluated in your
May 29, 2003 draft Environmental Impact Statement (EIS). 1-5

Your draft EIS contains indisputable evidence of the devastating and irreversible
environmental harm caused by mountaintop mining. Other agency studies also show
that mountaintop mining contributes to flooding disasters in mountain communities.
Unfortunately, each of the alternatives in the draft EIS ignores the findings
of these studies and the very purpose of the EIS- to find ways to minimize, to
the maximum extent practical, the environmental consequences of mountaintop mining.
The draft EIS does not examine a single alternative that would reduce those impacts.

Worse, your "preferred alternative" would clearly increase the damage from mountaintop
mining by eliminating the Surface Mining Control and Reclamation Act's buffer
zone rule that prohibits mining activities that disturb any area within 100 feet
of larger streams, eliminating the current limit on using nationwide permits to
approve valley fills in West Virginia that are larger than 250 acres, and giving
the Office of Surface Mining a significant new role in Clean Water Act permitting
for mountaintop mining (a role it does not have under current law). 4-2

Our environmental laws require, and the citizens of the region deserve, a full
evaluation of ways to reduce the unacceptable impacts of mountaintop mining.
I urge you to abandon your "preferred alternative" and to reevaluate a full range
of options that will minimize the enormous environmental and economic damage caused
by mountaintop mining and valley fills.

Thank you for your consideration.

Sincerely,

Michael Compton
2640 Cashel Ct
Lexington, KY 40509-1486
USA
luxilus@hotmail.com

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

ConroyHS@aol.com
To: R3 Mountaintop@EPA
12/22/2003 06:18 AM cc:
Subject: Comments on draft programmatic EIS on mountaintop removal coal mining

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

Can we look ahead, to a time when our current practices will hurt our childrens future?
I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. 1-9
We are not all "environmental nuts." Mainsteam America is seeing the damage and will take action with votes.

Sincerely,

James Conroy
322 Madison Ct.
Brick, New Jersey 08724

cc:
Senator Frank Lautenberg
Representative Christopher Smith
Senator Jon Corzine

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

gilletlb@northnet.org
01/01/2004 09:26 AM
Please respond to gilletlb

To: R3 Mountaintop@EPA
cc:
Subject: mountain top removal for coal mining

Sir:

This is one of the more miserable policies of an admininstration which is a miserable failure on every environmental policy it has put forward. 1-9

It should be subducted immediately, not 100my years from now.

A voter who always votes,
Peggy Conroy
West Chazy, NY

RECEIVED AUG 20 2003

Aug 15, 2003

Mr. John Forren
U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

As a resident of Lexington, in eastern Kentucky, I have watched the mountaintop removal controversy with great interest. It's hard to believe the scale of destruction that is going on with our beautiful mountains. I have met with coalfield residents many times, especially after the coal slurry disaster in Martin County, Kentucky, that was caused by mountaintop removal mining.

I have talked with people whose water wells have been destroyed, whose foundations have been cracked, who have had to sue coal companies for dust from preparation plants, whose children go to bed at night with their clothes on when it rains, for fear of flooding. 16-3-2

It seems to me we are destroying the future economy of the region. Clean water will be as important to future generations as oil is today. The water wars are coming, as has been predicted by Fortune and other business magazines. This is why we see multi-national conglomerate corporations like RWE, Vivendi, and Suez swallowing up American water companies like American Water Works of Vorhis, NJ. These big companies know that the potential profits are huge in the future for those with a monopoly on a reliable source of clean water.

We have clean water in abundance here in Appalachia, and it can be our future economic salvation. Or we can bury our mountain streams underneath mining waste, and contaminate our free-flowing Appalachian streams with blackwater spills and toxic runoff from mountaintop removal sites. 5-5-2

It's hard to believe that the Bush administration, which prides itself on being so industry-friendly, can be so short-sighted as to destroy, permanently, one of our greatest economic and natural resources: clean water. More than 1,200 miles of our headwater streams have been buried or destroyed by valley fills.

But that's only the beginning of the economic stupidity. Mountaintop removal also destroys valuable hardwood forests, and has already had a negative impact on the timber industry in West Virginia. Almost 7 percent of our forests have been - or will soon be - leveled by mountaintop removal. West Virginia Division of Forestry Director Bill Maxey quit his job in protest of mountaintop removal. That's jobs being lost! 11-6-2

Flooding in Appalachian communities is increasingly common and severe. Who pays? FEMA – i.e. the taxpayer! And homeowners' insurance goes up every time there is another disaster. The coal companies externalize their costs onto the public. 17-3-2

It doesn't have to be this way. There are laws on the books to protect clean water, public safety and the environment. It is perfectly clear that mountaintop removal and valley fills are a violation of the federal Clean Water Act and the Surface Mining Control and Reclamation Act. These practices should be banned. The coal industry must not be allowed to destroy our homeland.

The draft Environmental Impact Statement on mountaintop removal and valley fills is a dangerous gift from the Bush administration to the coal industry. Instead of recommending ways to *stop* the destruction, the EIS proposes ways to make it easier for coal companies to level our mountains, bury our streams, and wreck our homeland. This is shameful and wrong. 1-9

I know first hand the terrible impacts of mountaintop removal and valley fills. I also believe we can build a better future for eastern Kentucky. We can have clean streams and a healthy forest and restore our quality of life. We can create good jobs for our people that don't wreck the environment. And we have to start down a different road now.

Take a stand. Enforce the law. Ban mountaintop removal and valley fills. Stop the coal industry from destroying everything that we value most. Start making choices that will benefit our children and yours.

Sincerely,

David S. Cooper
608 Allen Ct.
Lexington KY 40505

----- Forwarded by David Rider/R3/USEPA/US on 01/09/2004 02:49 PM -----

davecooper928@yahoo.com To: R3 Mountaintop@EPA
cc:
12/31/2003 12:19 PM Subject: Comments on draft programmatic EIS on mountaintop removal coal mining

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

In regard to the Environmental Impact Statement for mountaintop removal mining. I am strongly opposed to this form of mining. It destroys and contaminates the drinking water supply for millions of people downstream on the Ohio River, the Cumberland River and the Tennessee River with heavy metals and mining sediments.

It buries streams under tons of mining rubble, eliminating all forms of life in the stream.

Mt top removal (MTR) contributes to flash flooding which has killed 10 West Virginians in the past two years, and destroyed 4,000 homes and nearly wiped out several communities. 1-9

MTR has a very strong adverse impact on the communities, people, environment and wildlife of Appalachia. the scope of the devastation is practically unprecendented.

The forests that are obliterated are some of the most productive and biodiverse hardwood forests in the world (the mixed-mesophytic forests of Appalachia). When the coal companies are done with their reclamation, all that is left is a grassy filed- a biological desert.

I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities.

According to the administration's draft Environmental Impact Statement (EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations. 1-5

Remarkably, the Bush administration's "preferred alternative" for addressing the enormous problems caused by mountaintop removal coal mining is to weaken existing environmental

protections. The draft EIS proposes streamlining the permitting process, allowing mountaintop removal and associated valley fills to continue at an accelerated rate. The draft EIS also suggests doing away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams unless it can be proven that streams will not be harmed. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including: 1-5

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal

- direct impacts to streams would be greatly lessened by reducing the size of the valley fills where mining wastes are dumped on top of streams

- the total of past, present and estimated future forest losses is 1.4 million acres

- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species

- even if hardwood forests can be reestablished in mined areas, which is unproven and unlikely, there will be a drastically different ecosystem from pre-mining forest conditions for generations, if not thousands of years

- without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining

The Bush administration's "preferred alternative" ignores these and hundreds of other scientific facts contained in the EIS studies. In light of these facts, the Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. 1-5

Sincerely,

David Cooper
608 Allen Ct
Lexington, Kentucky 40505

cc:
Senator Mitch McConnell
Senator Jim Bunning
Representative Ernie Fletcher

6034 Richmond Highway, #804
Alexandria, VA 22303
September 11, 2003

John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

REC'D SEP 15 2003

Mr Forren:

I am writing concerning the Draft programmatic Environmental Impact Statement (EIS) on mountaintop coal mining in Appalachia.

I am very familiar with the area affected by the EIS, as my mother is from Kentucky and my father is from Tennessee. An appreciation for the beauty of the land, enjoyment of the wildlife, and respect for the culture of Appalachia are my parents' legacy to me. I spent two summers and numerous weekends in and around Salyersville, Kentucky during my college years as a member and president of the University of Dayton's Kennedy Appalachia program, providing support to children in the area. I saw first hand the effects of surface mining on the lives of the families—on the one hand it was a source of income if they were fortunate enough to hold one of the ever-decreasing jobs in mining, on the other hand their land and water was harmed by the runoff and spilloff from the mines.

The proposed actions allow mountaintop removal mining approaches which destroy forests and wildlife habitats; spoil waterways, resulting in contaminated water, clogged streams, and flooding; require blasting, which damages homes; and destroy the beauty of the mountain scenery, for which Appalachia is known. In addition, such approaches result in further decreases in jobs for an area already economically depressed.

History has repeatedly shown that mining companies have little, if any, respect for the people and environment of Appalachia. The rape of the land and the pillaging of the people and economy of the area have continued unabated for over a hundred years. Every step must be taken to reverse this history, and not make it easier to continue such practices. 1-9

Please stop mountaintop removal mining and work toward alternatives that maintain the Appalachian environment and heritage as well as build the economy of the region.

Respectfully,

Kennon R. Copeland

REC'D DEC 2 2 2003

4424 B Crown Ave
Coeur d' Alene ID 83815
12/18/2003

Mr John Forren:
Please do not weaken environmental protections for the devastating practice of mountaintop mining. 1-10

Thankyou

Ruby B Corbin

Mrs. Ruby B. Corbin, Jr.
4424 B Crown Ave # B
Coeur D Alene, ID 83815

Jennifer Cox
20030 Weybridge #202
Clinton Twp, MI 48036

REC'D JAN 2 2 2004

January 12, 2004

John Forren
US EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Re: Mountaintop Removal Mining

Dear Forren:

I am writing to tell you that I oppose the Bush administration plans to continue to let coal companies destroy public health with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. According to the administration's draft Environmental Impact Statement (EIS) on mountaintop removal coal mining, the environmental effects of this practice are devastating and PERMANENT. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams; no limits on the number of acres of forest that can be destroyed; no safeguards for imperiled wildlife; and no safeguards for the communities that depend on the region's natural resources. 1-7

Instead of allowing mountaintop removal to continue unabated and even increase, the Bush administration must consider alternatives that reduce the environmental and quality of life impacts of mountaintop removal and then implement those measures to protect natural resources and communities in Appalachia. Alternatives must be evaluated for individual projects as well as regionally so that the cumulative impact of the destruction caused by mountaintop removal is addressed. 10-4-2 9-2-2

I encourage your attention to these efforts.

Thank you,

Jennifer Cox

Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:47 PM -----

John Cox
<coyote1701@yahoo
.com>
01/05/2004 10:32
AM

To: R3
Mountaintop@EPA
cc:
Subject: Strengthen
draft EIS on mountaintop removal coal mining

January 5, 2004

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I have lived and worked in eastern KY all my life and know firsthand the devestation that MTR causes to our community. My people are tired of being a region of sacrifice to big coal companies and others hellbent on continuing over a century of economic colonialism.

We demand as a people that you amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. Yes, I've seen them. Cracked foundations, flooded communities, contaminated water supplies, impoundment spills, fragmentation of a globally outstanding and threatened ecosystem, and structurally and emotionally broken homes are the result of MTR. Don't believe me? Why don't you go visit these communities sometime and see for yourselves? Come see the wonderful drug-ridden, poverty-laden, ecologically degraded land that dependence on a single extractive industry economy has given us. 1-9

According to the draft EIS, the environmental effects of mountaintop removal are WIDESPREAD, DEVASTATING, and PERMANENT. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife and no safeguards for the communities that depend on the region's natural resources for themselves and future generations. Instead, the Bush administration's "preferred alternative" for addressing the enormous problems caused by mountaintop removal mining ignores the administration's OWN studies and proposes weakening existing environmental protections and allowing mountaintop removal and associated valley fills to continue at an accelerated rate. 1-5 1-10

The EPA must ban this devastating mining technique as per its stated impacts in the EIS! Otherwise, what the hell are you people being paid for? You should act on behalf of what you are supposed to protect. 1-9

The faith the American people have in the EPA has already been severely eroded during this administration. Removing global warming statements...loosening Clean Air and Water standards...and now this! Either step up to the plate and stand up to this corporate administration or place bags over your heads and remove yourselves from the position of natural resource stewards and public protectors, making sure to kiss Stephen Griles coal-dusted ass on the way out. And before you leave, go ahead and change your name to what it really is...the Energycompany Placation Agency!

Sincerely,

John Cox
1505 Auburn Ct.
Lexington, KY 40505
USA

Mr. John Forren
US Environmental Protection Agency
1650 Arch St
Philadelphia, PA 19103

REC'D JAN 1 2 2004

I have lived in a state where Mountain Top Removal occurs. The coal industry promises flat, reclaimable land for industry and other uses. I have visited removal sites, both by foot and by plane. The promise of flat land is true and has been delivered in tremendous quantity. The promise of reclaimable is false. Only where the industry pours money into the site does reclamation appear to work. Where the coal industry does only what the law requires, it is obvious that reclamation is a failure and the rocky barrens remaining will only be reclaimed through time by nature.

Kentucky has been granted thousands of acres of flat land by the coal companies, but there has been NO influx of industry or jobs. Instead there seems to have been a decline in both.

The water quality in the hollows being filled to make flat land must be dismal because the life that should be in those streams is not there. Pollutants released by the breaking and rearranging of the rocks and silts from the dozing of the forests and soils fill the streams and ground water. Stream life and native Kentuckians suffer. 1-9

The people lose their land, their water, their pride in being mountain people, and any future hope of building tourist industries.

The rich get richer and the poor get poorer. Kentucky will be left with very little once the coal industry is through.

Please stop Mountain Top Removal now.

James Crabb
James Crabb
246 North Broadway
Lexington, KY 40507

REC'D JAN 1 2 2004

Ryan Crehan
181 Main St
Ridgefield, CT
06877

Dear Mr. Forren,

I am writing in response to recent events in regard to the mountaintop removal EIS. As you know, mountaintop mining causes significant + irreversible environmental harm as stated in the EIS. Unfortunately, the preferred alternative allows massive environmental impacts to occur by weakening preexisting regulations with only minimum economic impact. As an EPA official, I ask + expect you to uphold the highest standards for our environmental laws. Mountaintop mining is a serious + destructive practice that should be limited. Riparian areas need adequate buffers and improved regulations. Please do not weaken the very regulations you are expected to uphold. 1-10

Thank you
Ryan

I would appreciate your response to this letter 1-10

Forwarded by David Rider/R3/USEPA/US on 08/28/03 05:06 PM -----

Kathy Cross <KatJam123@msn.com> To: R3 Mountaintop@EPA
cc:
Subject:
08/28/03 03:30 PM

<?xml:namespace prefix="v" /><?xml:namespace prefix="o" />
Dear Mr. Forren,

I feel that the conclusions of the Environmental Impact Statement on mountaintop removal are totally at odds with the findings of the statement. The statement finds that mountaintop removal coal mining severely damages the watersheds it alters so significantly. Increased runoff and siltation are created, contributing to our recent bouts of flooding in West Virginia. The conclusion should not be to streamline the permitting process, it should be to stop mountaintop removal coal mining. 1-9

\Sincerely

Kathy Cross

REC'D DEC 18 2003

DEC 10, 2003

DEAR MR. FORREN;

My husband and I have looked at the Draft EIS on mountaintop removal. We are both still appalled at the crime of the utter destruction of West Virginia & other states mountains & ecosystems. How does this require a study? It is so blatantly wrong! The coal industry needs to absolutely stop this type of mining. 1-9

Sincerely,
April & Jeff Crowe

April & Jeff Crowe
HC-68
Box 106
Trout WV 24991

Juno e-mail for kate.cunningham@juno.com printed on Monday, December 29, 2003, 10:40 AM

From: kate.cunningham@juno.com
To: mountaintop.r3@epa.gov
Cc: kate.cunningham@juno.com
Date: Mon, 29 Dec 2003 10:20:06 -0500
Subject: comment on "buffer zone" rule

REC'D JAN 0 2 2004

Mr. John Forren
US EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Sir:
Re: Proposal to eliminate required buffer zone, protecting streams from coal mining

I am aware that the US EPA has made a finding, in recent years, that the number one cause of stream degradation in Kentucky is siltation. Kentucky has more "coastline," including streamsides and lakesides, than any other state in the 48 states.

Mountain top removal coal mining has caused incalculable damage to streams in West Virginia and Kentucky. As a native Kentuckian, I must protest this proposal to eliminate the meager protection which we now have for our streams in the Eastern and Western coalfields of Kentucky. Pushing mountaintops over to fill in hollers and occlude stream sources is simply large scale "nest fouling" that has already come back to haunt us, with silted up streams, buried stream sources, potable water shortages, and attendant loss of wildlife and human habitat. 1-10

I am extremely disappointed that the US EPA, which should be a leader for the planet, is now considering the prospect of weakening, rather than strengthening, protections for clean water and the environment in general. Thank you for including my comments in the record.
Sincerely,
Kate Cunningham, J. D.
8606 Whipps Bend Road
Louisville, KY 40222
502 339-1381
Kate Cunningham

THE OCEAN CONSERVANCY
ADVOCATES FOR WILD, HEALTHY SEAS
Ms. Marilynn Cuonzo
160 Guy St
Elkins WV 26241-3927

January 4 — C

Dear Mr. Forren,
I'm sure you've seen the consequences that come from Mt Top Removal — I'm sure you understand all the problems that are a result too. Therefore I'm not spending alot of time telling you what you already know — My message to you & all those that have the power to make long term decisions that have a tremendous impact on all of us — Now & for a long time in the future — our children — We should consider our lasting effects before going ahead with such projects — Maybe even better stewards for the earth so we can enjoy its beauty for a long time to come — 1-9

Thank you;
Marilynn Cuonzo
160 Guy St
Elkins WV 26241

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"jannetnet@yahoo.com" <jannetnet 01/06/2004 12:18 PM

To: R3 Mountaintop@EPA

cc:

Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Please amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. This is an irretrieveable step in the destruction of our country. It must be limited for all time for the good of our country, our people and God's green earth.

According to the draft EIS, the environmental effects of mountaintop removal are widespread, devastating and permanent. Yet the draft EIS proposes no restrictions. I urge you to immediately amend the draft EIS accordingly.

1-9

Sincerely,

Janet Dales
1341 Sixth Ave.
Belmont, CA 94002
jannetnet@yahoo.com

REC'D DEC 2 2 2003

Mick Daugherty
424 Market St.
Wheeling 26003

December 18, 2003

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

The West Virginia Highlands Conservancy Newsletter has informed me that you are accepting public commentary per Mountaintop Removal Mining and subsequent Valley Fill into rivers and streams.

I know that I cannot further inform you of the monstrous effects of the insanity of coal mining. My Father had his left arm torn off on a coal tipple in Glencoe, Ohio back in the twenties. My Uncle had been trapped five times and died of black lung. I have not worked in the coal industry, but I have travelled all-over the coal fields and seen first hand the devestation caused by the timber industry and coal mining.

The stupidity, ignorance, arrogance and greed of the coal companies and their stockholders is beyond criminality. This once beautiful area is an industrial wasteland, a blighted disaster. If something isn't done to stop this perversion, there will be nothing left but a barren landscape, fit only for more ugly housing developments and more rural sprawl.

Perhaps you have record of my Email(s) to you from rural, Northwest Arkansas, where I own 60 acres of land. I will not allow loggers on my land. I have a hand-built cottage and barn there, which takes up about an acre; the rest of the land is for flora and fauna. There are too many of us, we've got too much, too many want more of what they've got too much of now, and we live too long. I'm 71 years old and it looks like Medical Science will keep me going for a while. I try to be a decent person and not acquire more than I need.

For the record, I'm an ex-GI (navy: Korea) opposed to war, and I have a MA from UCLA. I'm a playwright and work in live Theatre. In the past, I did pretty well in Hollywood and NYC, but I can't take the craziness, the hype, the hustle, the hassle; too many people.

PLEASE! do everything you can to stop mountaintop destruction and all that results from it: erosion, pollution and devestation of the wildlife--what little beauty there is left in this ravaged area.

1-9

Thank you and best wishes for the Season.

Sincerely,

Mick Daugherty

----- Forwarded by David Rider/R3/USEPA/US on 01/06/2004 03:55 PM -----

bongo dave <bongodave@cox.net> 01/02/2004 02:36 PM

To: R3 Mountaintop@EPA
cc:
Subject: Comments on draft EIS on mountaintop removal mining

January 2, 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear John Forren,

I am upset to learn that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities.

According to the administration's draft Environmental Impact Statement(EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations. 1-5

The Bush administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal mining is to weaken existing environmental protections. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including:

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal;

- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species; 1-10

- Without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining.

In light of these facts, I urge you to consider alternatives that reduce the environmental impacts of mountaintop removal. Thank you for your consideration of this important issue.

We need to get away from instant gratification thinking. Let's Open up to something new, fresh, and renewable. The energy is already 'naturally' there begging to be used this way. Let's give it a try.

I believe if our leaders... along with the rest of the world would quickly read and or listen to these books and tapes* listed below, we would have a chance to get thru all this, swiftly and with as little grief as possible and may create a lot of good friends on the way...though I don't think Saddam Hussein would be motivated to change... I believe he is... our motivation... to change...
... I never read so much and so fast in my life. And I now, have learned the difference between Religion and being Spiritual, and better... how the two can compliment each other, yet, not be the same thing.
More importantly, why it is so imperative that we seek to find this difference very soon...there are more reasons here than we thought.. And it is really so easy to understand, the way these authors express these Universal ideas and differences.

If you are a seeker...
This may help you or a friend find some new angles, from these Angels.

1] MANIFEST YOUR DESTINY [and others] Tapes or book by Wayne Dyer
2] * GARY ZUKAV'S book – SOUL STORIES, SEAT OF THE SOUL –Tapes or book
3] Or you could Listen to these audio tapes first. They may be the fastest: *THE NEW REVELATIONS-BY NEIL DONALD WALSCH along with his Friendship with God or Communion with God series or CONVERSATIONS WITH GOD

4] THE STARSEED TRANSMISSIONS; THE THIRD MILLENIUM; RETURN OF THE BIRD TRIBE by KEN CAREY [listen to the others first, then these]
5] *** HEALING THE SOUL OF AMERICA and/or EVERYDAY GRACE by MARIANNE WILLIAMSON
6] *THE BOOK OF CO-CREATION 'THE REVELATION' our crisis is a birth- BARBARA MARX HUBBARD
7] SCIENCE OF MIND – This was actually my first introduction to all of these books, tapes... and spouse. And the real conscious beginning to my life's purpose or quest. Please check out their small booklet, published monthly, that has continued the studies started by EARNEST HOLMES (this is NOT to be confused with scientology ... which we know nothing about, so we can not advise one way or another about that, please ...no offense to anyone.)
This is also the way my life partner and I met ... at a Creative Life Drum Circle Thru Reverend Dr. Jesse Jennings He is the minister of the Creative Life Spiritual Center of Houston. TX. He also has an article monthly in this periodical. And it is a very good read... and is very interesting as he answers some of the most " tough" questions about the spiritual practice we all go thru in our everyday lives and he has a knack of making it all fun! And is well worth the time checking him out. By reading the periodical called SCIENCE OF MIND-change your thinking change your life; a philosophy, a faith, a way of life. Can be ordered online at scienceofmind.com or call 800-247-6463 or check a local bookstore or library.

8] *** www.humanitiesteam.com or humanitysteam.com - or look up Neil Donald Walsch, which you can check this out now. And actually help now.

9] THE LAST HOURS OF ANCIENT SUNLIGHT- THOM HARTMAN – Rachel my spouse, read this, and recommends it. I have not read it yet. Though she had introduced me to all the others... must be good. She has recommended that I include it here.
10] Carolyn Myss –Listen to anything by her, i.e. ENERGY ANATOMY, ANATOMY OF THE SPIRIT, SACRED CONTRACTS; or 'YOUR PRIMAL NATURE'
11]*** The DEAD SEA SCROLLS by GREGG BRADEN
12] 'JUMP TIME' by Jean Houston Ph.D.
13] 'YOUR PRIMAL NATURE' by CAROLYN MYSS
We need to become more a more 'all inclusive'... and less 'separatists' as a society... maybe I am wrong... I have been before...though I personally, at this time... feel...
Instead of just saying "God Bless America". We need to think a little deeper and perhaps say" GOD BLESS US ALL"... Or "GOD BLESS OUR WORLD or God Bless our Earth"..... Or "GOD BLESS OUR UNIVERSE... ".
Otherwise our image comes through as if are coming from a separatists fear base [as opposed to a love base].. as if there is not enough GOD/LOVE TO GO AROUND to bless... everyone... let alone a whole other country.
...IT MUST SEEM LIKE A NEGATIVE REMARK TO EVERYONE ELSE WHO IS NOT INCLUDED IN THIS "God Bless America"... 'PRIVATE CLUB'.
We need to start accentuating the things we all have in common...starting with the 'EARTH'..... Though that would seem logical...yet... It also seems that we need a constant reminder of this...perhaps we could fly a FRESH NEW FLAG 'under' each countries flag. And the only requirement to fly this flag... would be... you have to belong to the Earth.... Or even more inclusive...the universe...
The add-on flag could simply have a picture of the EARTH on it. Perhaps with the word 'ONE' or "We are all one"...or" We're all in this together"...something more all inclusive...across the front of it, as a constant reminder that all...what 'one' does...now...affects us all...especially now that the world seems... much 'smaller' these days. 'We are... now... all in the same boat'. Perhaps even add an image of a boat to the flag to help remind us to..." Let's not rock it" as the saying goes. Better yet let's start fixing the holes we have put in it...and start treating each other the way we would like to be treated...and we all will have much more fun sailing with a much smoother ride, with less tension. Then we can all be rested and prepared to work together and get this place back to the more original plan the creator had probably intended for us and the Earth.
The sale of this flag could help repair the earth and each other. From the damage we ALL did.
Please read Healing the soul of America and listen to Neale Donald Walsch- They can be checked out from the library. These tapes seem to be saying everything we all have been trying to say anyhow, but without knowing how to put the words together, especially without all the dogma involved. And they have the potential to help us... help others. ...if, or when, they ask for help, and you will know more what to say...or some things to refer seekers to.. People knowing of these modalties... CAN save our world, as we now know it.
Most of all... these authors admit that these messages are not the only way..."just another way"
And even better...not everyone needs to even have read all of these to make a difference in the collective conscious of the planet. It has been discovered that it only takes 10% of a population to effect a knowing in the rest. [The hundredth monkey effect] or read/listen to the LOST DEAD SEA SCROLLS for more info on this.
All in all, we must remember that
THE EARTH DOES NOT BELONG TO US...WE BELONG TO THE EARTH. Chief Seattle.
And ...Humans are not the only ones on the Earth ...we just act like it.

These two sayings... simply put ...seem to help us bring things back to perspective swiftly.
Please watch the new Dennis Kucinch film, about how electable he is and how he talks about being a long shot... I just did. And I cried ...deeply... We do need a long shot... it may be the only thing that can get us back on track...being this far off.
Also I noticed that Marianne Williamson, Neil Donald Walsch and Ed Asner and many many others are now endorsing DJ [Dennis John] ...Ed Asner, coincidently, is one of the readers for the CONVERSATION WITH GOD SERIES written by Neil Donald Walsch. Please don't think that Neils book and tapes are full of dogma they are more like common sense...actually going thru his material, is more like re-membering, than learning anything knew. This is a collection of things we already know... but somehow have forgotten...yet oddly as we re-discover this information...we feel, very profound, while re-connecting with all this.
They are like no other book or tapes that I have ever read or heard.
And this series along with Marianne Williamsons, Carolyn Myss, Gary Zukav and Wayne Dyer may have the potential for so much healing, on such a grand scale, for everyone... that makes these best sellers. And must reads...why they don't use these in schools is almost ridicules...it has the potential to avert grief ...almost immediately. And I don't consider it any more religious than teaching a psychology class.
It is not the only way ...just another way.
Good Happens
Love Shall Prevail

Sincerely,

bongo dave
6990 Stearns Rd
Olmsted Falls, OH 44138
USA

REC'D NOV 1 8 2003

12 November 2003

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren,

I was disappointed with the DEIS. It seems that the public's resources such as clean water, headwater streams, and animals are not adequately compensated by the coal companies. The coal companies are allowed to profit at the public's loss of trust resources. What we need are stronger laws protecting trust resources, not weaker ones. I understand America has a security interest in energy; however, the costs are unfairly distributed to Appalachia. 10-8-3

Mountaintop-removal mining and valley fills are devastating the Appalachian environment and its unique culture. These practices bury important headwater streams, destroy biologically rich forest ecosystems, damage drinking-water sources used by millions of people, cause frequent and severe flooding, and wreck the quality of life in mountain communities. 1-9

I do not support Alternative 1, 2, or 3 as described in the draft EIS report. None of these options will protect Appalachian forests, water, or communities. In particular, I oppose the proposal to eliminate the stream buffer-zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. The coal industry must be regulated, and their take of public resources must be where the regulation begins. 1-5

Leveling mountains and burying streams is wrong and must stop.

Sincerely,

J. Eric Davis Jr.

----- Forwarded by David Rider/R3/USEPA/US on 01/09/2004 02:51 PM -----

william dawson <redsprucerolfing@yahoo.com> 01/06/2004 03:13 AM

To: R3 Mountaintop@EPA
cc:
Subject: Comments on draft EIS on mountaintop removal mining

January 6, 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear John Forren,

i am a resident of appalachia and lve the land where i live. it is full of natural richness and as such has been exploited for too long, at its own expense, and also that of the country. i reall ydont know if it is worth telling you how disgusting the moutaintop removal is from an ecological and aesthetic stadpoint. i am convinced nobody in the bush administrtion knows anything about science at all, conveniently dismising the natural reality of cause and effect when their plans are at stake. do you all care about your childre? i care about mine and want them to live in a clean and environmentally safe world. as americans we have the most naturally beautiful, diverse and fertile land in the world. yet we take it for granted and even with scorn. this saddens me from an administration so intent on "making us safe" from all kinds of human agencies. but then ignoring or dishonestly denying the dangers posed from environmental contamination. all our public water should be safe at least to eat the fish from, but dumping exessive amounts of mine spoil into the headwaters of our major rivers would certainly not make me feel safe eating fish downstream. i feel like i'm wasting my time with this because your administration has yet to demonstrate concern for our natural heritage or its future. sad, very sad. dont plan on getting my vote. william dawson, marlinto, wv. 1-9

I am upset to learn that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities.

According to the administration's draft Environmental Impact Statement(EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of 1-5

forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations.

The Bush administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal mining is to weaken existing environmental protections. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including:

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal; 1-5

- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species;

- Without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining.

In light of these facts, I urge you to consider alternatives that reduce the environmental impacts of mountaintop removal. Thank you for your consideration of this important issue.

Sincerely,

william dawson
rte. 1 box 345a
Marlinton, WV 24954
USA

REC'D SEP 15

Elmer and Angela Dobson
2335 Clear Creek Road
Hazard, KY 41701
606-251-3710

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren

This letter is the absolute truth about mountain top removal mining and valley fills. You may even say that this letter is a true environmental impact statement without the tainting of special interest, near sighted, bottom line only, non-Appalachia individuals, companies, politicians, and energy wasters.

Sir, what we are about to tell you is the truth, and you sir are invited to come and visit Appalachia at anytime to see for yourself. We understand that you and your staff probably live in a concrete jungle and that you are obviously lacking in the area of common sense and the basic knowledge that our mountains, streams, timber, and other natural resources are here for us to use not to waste and destroy. Every time you turn on a light or any other item which consumes electricity remember your electric bill only shows a small part of the actual cost. We live here and see the cost everyday. We live with land that wont grow a weed, and water that is too foul and poison for anything to drink much less live in. Anyone who would even consider weakening the current regulations which are already too weak, must have a pure hatred for their children and grandchildren. The great rainforests of the earth are disappearing at an alarming rate and every time we do so much damage to the land that it wont even grow a tree, we do damage to the environment that our grandchildren will live in. You and everyone involved are betting that there is enough coal to produce electricity to power the air purifiers that will be needed to clean the air of the world after the trees are gone. What kind of sense does that make?

Do you know that if someone went to Philadelphia and dumped selenium into your water ways, they would be arrested, have to pay huge fines and maybe even face jail time. Maybe releasing poisons such as selenium into any waterway. (Waterway: any place where water naturally runs, or collects two or more days a year.) A million dollars a day fine for every day it is not cleaned up. Are you people so ignorant that you don't realize that aquatic life is a vital part of the balance of nature? How much Aquatic life has already been destroyed? 2000 miles of streams sounds like a lot to us! 5-5-2

We believe that God created a special place in Hell for those of you who willingly do damage and destruction to his creations. Myself and almost everyone I know are opposed to mountain top removal mining operations and extremely opposed to the destructive, environmentally murderous, total disregard for the earth, practice of valley fills. It is disgusting and makes us mad as hell that we fund scientific studies and then ignore them when they find that leveling mountains and burying streams must be stopped. I believe that a very large law suit may be in order. 1-9

Any law, rule, or regulation that allows mining activities of any type within 100 feet of any stream or waterway above or below ground is wrong, dangerous to all life forms downstream, and we are to no end opposed. How many scientific studies must be done before our government realizes the widespread and irreversible damage the coal industry is doing and our elected officials are continuing to allow to happen to the state of KY. and all of Appalachia. 5-7-1

The E.I.S. contains alternatives #1, #2, and #3. These alternatives are a bad joke. They are a direct threat to our homeland and each and every person who lives here. 1-5

If you wrong people, the environment, or the wildlife, it will eventually come back to you. How much longer do you think you can ignore scientific and other evidence of the severe harm of mountain top removal, valley filling and other unethical mining practices. You are ignoring the public demand and basic American right to have clean water to drink and use in our daily life. We all should have a right to a clean, healthy environment. We should have a right to live in communities where our homes are not shaken apart by the hands of other men. We should be safe from companies who have no regard for anything but the bottom line.

Thank You,
Elmer & Angela Dobson

1-20-04

DEAR MR. FORREN

REC'D JAN 26 2004

PRESIDENT BUSHS' ADMINISTRATION STILL PLANS ON LETTING COAL COMPANIES DESTROY APPALACHIAN MOUTAIN TOPS, BY LEVELING THEM FOR THIN SEAMS OF COAL. WITH THE TONS, OF NOW DIRT, WILL BE DISPOSED OF IN STREAMS; WHICH OF COURSE WILL DESTROY THERE NATURAL PURPOSE AS WELL AS DRINKING WATER SUPPLIES & MOVING VILLAGES OF PEOPLE FROM THEIR HOMES. 1-9

THIS DISTRUCTION IS REPULSIVE TO THE EYE, DISCUSTING TO THINK THEY'LL BE ABLE TO DO THIS ACT, & SICKENS ME TO READ OR HEAR ANYTHING REGUARDING DISRESPECT TO GODS/OUR EARTH!

I PLEA WITH YOU TO DO ALL THAT YOU CAN IN PREVENTING THIS DISTRUCTION & ANYTHING YOU CAN DO TO PRESERVE THIS LAND.

PLEASE,
B. Dominey

B. DOMINEY
14519 FRIAR
RESEDA, CA. 9

Dear Mr. Forren -

I'm disappointed & angry that the Federal Government ignored its own studies when it proposed weakening, rather than strengthening, protections for people & the environment. I do not support any of the three alternatives contained within the Environmental Impact Statement Report. All three options will make it easier for companies to destroy streams, endangering wildlife & nearby communities. 1-10

1-5

Sincerely,

Gail Douglas

REC'D DEC 29 2003

Best wishes for
a Merry Christmas and
a Happy New Year

GAIL DOUGLAS
PO BOX 673
VALLEY STREAM, NY 11582

The LORD your God will be with you wherever you go.

Joshua 1:9

August 8, 2003

REC'D AUG 1 8

Mr. John Forren
U. S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I would like to share my opinion with you in regards to Mountain Top Mining and Valley Fills in Appalachia. I believe Environmental groups are pushing their proposals to the extreme at the cost of thousands of jobs. You can go so far with regulations that Companies cannot afford to stay in business for the expense of trying to meet such strict guidelines. 2-3 11-2-2

The economy is terrible right now and the nations unemployment rate is at 6.2%. We can mine the coal and follow the current regulations that protect our air and water. The land is restored back to its natural beauty. 1-12

I think one of the biggest problems in our area is sewage that gets into our streams and rivers. The area I live is only six (6) miles outside of Harlan, Ky. and "city water" is not available. The well water is so bad, that filtering systems can't handle the iron and sulfur. I would like to see the Environmental groups look at some of these serious problems and not look at ways to force the Coal Industry out of business with stricter regulations.

The Coal Industry has supported me now for 25 years. I was able to raise my son as a single parent. I appreciate the coal miners who work very hard. For most of the miners, coal mining is and has been their life. Please support the Coal Industry in this very important matter.

Sincerely,

Linda C. Downs

Linda C. Downs
P. O. Box 175
Putney, Ky. 40865

REC'D SEP 2 9

Dear Mr. John Fraunfelter:

Waneta Dressler here.

I received the Highlands Voice today as always I read it first to back.

I also read Still Fain I Comment. Here is my feelings. Mountain top Removal.

I have a mountain top. what I go to as often as I can. There isn't any thing more there. I carry in every thing I need. One which I do not mind but, what I've noticed is every time I visit more and more and closer and closer the destruction of my Beautiful Mountain is going. The more creeks are worse also.

1-9

The only place I can regain my self and find the peace of mind is there.

The bears, Coyotes, birds, Not to mention a few animals. How wonderful they are, How pleasing to get see this witness yet.

I adopted W. VA and the Mountain adopted me. Without it I do not know what would become of me. That Beautiful Mountain God so trustfully granted has brought me Salvation and my self to live back to me.

10-6-2

If just one person one would even need to find themselves or complete peace of mind just go to the Mountain and spend a few days.

The stream. Is there anything on Earth that is more beautiful to see or hear?

God then again trusted us to take of them. Our Lives and all the other things.

My, My, how precious we must have been to Our God for Him to grant us, trust us so with these precious gems to keep.

10-6-2

Yet were where I could I would stay in God's Great Land 24-7. But I can not afford to build what would be my simple home a widow lady alone to be there 24-7-12 as I would.

So if you need my name to vote to keep Our Beautiful State clean, safe and peaceful for all. Vote for me. If you need a better letter let me know I'll write it.

God Bless you all, God Bless West Virginia and may always have the Almost Heaven for Generations to Come.

Thank you
God Bless,
Waneta Dressler

1629½ Mason St, Union Mi. 49130

PHOEBE A. DRISCOLL
720 Swedesford Road
Ambler, Pennsylvania 19002
(215) 699-9648
Fax: (215) 699-7300

REC'D JAN 26 2004

To John Forren
US EPA 3EA30
1650 Arch St
Phila PA 19103

1/22/04

Dear Mr Forren -

I am appalled at the environmental destructiveness of mountain top mining - Please stop it! - In addition to the environmental damage it is a usual eye sore -

Phoebe Driscoll

Thanks for what ever you can do

1-9

10-6-2

-- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:52 PM -----

Mordunlop@aol.com
12/30/2003 12:46 PM
To: R3 Mountaintop@EPA
cc:
Subject: ..for att. Mr John Forren .. please.

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr Forren,

I am e'ing from Northern Ireland. I have been involved in environmental protection issues here in N Ireland for quite a number of years. I began my career as a junior Laboratory Assistant back in 1993. Then I was involved in a base line study of Water Quality in Lough Neagh, the largest fresh water resource in Great Britian. It has saddened me to watch the water quality in what is now the major drinking water resource for the majority of the 1.3 million inhabitants reduce in quality to now being hypereutrophic with algal blooms threatning the entire ecosystem.

I receive a bulliton from 'Earthwatch'. I found a site some time ago and left my e-mail address so receive their bulliton. Mostly I delete. Today an article intregued me. Here it is in part:
Mountaintop removal coal mining is a form of strip mining in which coal companies search for coal throughout Appalachia by literally blasting hundreds
of feet off the tops of mountains, pushing millions of tons of mining waste
rubble into surrounding valleys and burying hundreds of miles of streams. The
Bush administration has released a draft environmental impact statement assessing the effects of mountaintop removal mining that confirms that the
resulting environmental and social harms are severe and mostly irreversible.
More than 1200 miles of streams already have been buried, damaged or destroyed;
hundreds of square miles of forested mountains flattened; and generations-old
communities of coalfield residents have been forced from their homes by this
extremely destructive mining practice.

Please could you take a few minutes and explain in rational terminology the practice of mountaintop mining. I cannot imagine 'blasting hundreds of feet off the tops of mountains' ... and burying many miles of

1-9

streams.

In my understanding blowing off mountain tops is a very considerable achievement. Burying streams is a dangerous pasttime as they have usually predetermined their flow regeims and pathways and will quest to have them returned with mudslides and the like occuring as they re-establish their powerful ways. 1-9

I will be interested in any comments.

Yours Sincerely,

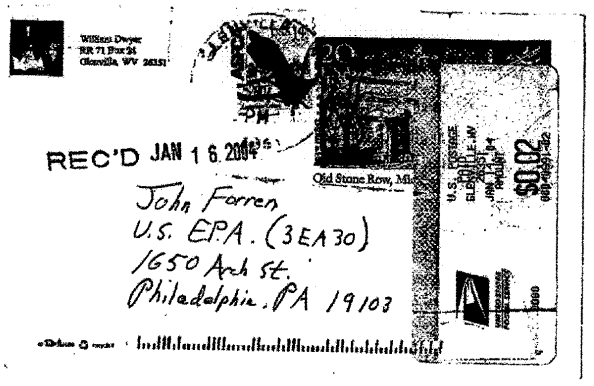
Morris Dunlop.

I'm concerned that the Environmental Impact Statement draft on mountain top removal does not recommend putting a stop to the practice. 1-8

It's a clear violation of the Clean Water Act and the Surface Mining Act to destroy mountains and fill in streams with the blasted rock as most people with common sence agree. Please enforce the law and don't cave into pressure from the coal companies and the Bush Administration. Thanks 1-9

Bill Dwyer
Rt 71 Box 24
Glenville, WV 26351

REC'D AUG 1 1 2003



I'm not at all happy with the draft Environmental Impact Statement on mountaintop removal. It makes it far too easy for coal companies to destroy the headwaters of our rivers & streams in violation of the Clean Water Act.

Bill Dwyer
Rt 71 Box 24
Glenville WV 26351

5-7-2

December 31, 2003

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103
Email: mountaintop.r3@epa.gov

Dear Sir:

"The federal government -- with Republicans in control of the White House, Congress and the judiciary -- has launched the largest rollback of environmental law ever. The Bush administration seems determined to undo much of the good done since Earth Day 1970, when 20 million Americans defended the planet in the biggest mass demonstration in U.S. history". "Bush's "Healthy Forests" initiative likewise suffers from Orwellian doublespeak, felling Western forests to save them. Disguised as a measure for curbing wildfires, the plan invites logging companies to cut healthy trees in national forests while reducing public oversight".[1] Now the Bush administration wants to make it easier for coal mining companies to blast the tops off mountains and dump the tons of resulting waste into the valleys and streams below. How well I can recall a gold mining operation being allowed to rip and strip here in Colorado all the while promising to protect the environment. Now it's a Superfund site. Thanks, but no thanks.

According to the draft EIS, the environmental effects of mountaintop removal are widespread, devastating and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife and no safeguards for the communities that depend on the region's natural resources for themselves and future generations. Instead, the Bush administration's "preferred alternative" for addressing the enormous problems caused by mountaintop removal mining ignores the administration's own studies and proposes weakening existing environmental protections and allowing mountaintop removal and associated valley fills to continue at an accelerated rate.

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities.

The Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. I urge you to immediately amend the draft EIS accordingly.

Sincerely,

Craig Edgerton
854 West Battlement Parkway, H206
Parachute CO 81635

(970)285-9825

[1] George Bush's War on Nature, GLENN SCHERER / Salon 6jan03

(Embedded image moved to file: pic29510.jpg)
----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:18 AM -----

Craig Edgerton <craigedgert@earthlink.net> 12/31/2003 01:56 PM

To: R3 Mountaintop@EPA
cc:
Subject: consider alternatives that reduce the environmental impacts (see Document enclosed)

The Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia(See attached file: Doc2.doc) 1-5

Dear Mr Torrey:

To my mind it is no less than scandalous that the Bush administration is allowing strip mining in Appalachia. He evidently has no regard for decent landscape, for drinkably water and the health of the people. This monstrocity needs to be stopped and I hope that you will do everything in your power to put a stop to it 1-9

Sincerely yours
Edgar Edinger
5534 PATTILAR AVE
WOODLAND HILLS, CA 91367

EDGAR EDINGER
5534 PATTILAR AVE
WOODLAND HILLS CA
91367

REC'D JAN 26 2004

REC'D JAN 26 2004

5534 Rattlar Ave.
Woodland Hills CA 91367
Jan. 20, 2004

Mr. John Forren
EPA

REC'D JAN 26 2004

Dear Mr Forren,

Some of my family lives in West Virginia & I personally have witnessed the harm done to communities in which mountaintops have been leveled due to strip mining. A tremendous problem of flooding as well as water pollution results & entire areas become uninhabitable. 1-9

As I understand it, the Bush administration is not only continuing with this practice but is further weakening restrictions on coal companies. This is disgraceful & rules against strip mining need to be strengthened & environmental protections increased. 1-10

Very truly yours,
Iier Edinger

---- Forwarded by David Rider/R3/USEPA/US on 01/20/2004 09:08 AM -----

"bongodave@cox.net" <bongodave 01/17/2004 01:20 AM

To: mountaintop.r3@epamail.epa.gov
cc:
Subject: Support clean water!

Mr. John Forren
U.S. EPA (3EA30)

Dear Mr. Forren,

Please reduce the harmful effects of mountaintop removal coal mining to protect natural resources and communities and do not weaken environmental protections that apply to the companies that are conducting mountaintop removal. 1-7

The draft Environmental Impact Statement (EIS) on mountaintop removal should be rewritten to recommend limits on the size of valley fills that bury streams and imperil wildlife.

The draft Environmental Impact Statement should not do away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams. 1-10

Below, is part of the list, I have been sending out:

To start, let me say… these are not the only ways…just some other ways.

First I must say that I have been reading that if we created a solar panel field that was one hundred square miles, that it would generate enough electricity for the United States. Even if this solar panel field had to be divided up and linked back together for logistics...If this is true… how can we deny creating this… The benefits are great and the pollution is nil and the likely hood of environmental accidents and the contamination and leaks as we have just seen, and almost seen again...or the possible spreading of contaminants by looters…and or "evil doers" as in Iraq, would be less likely.

And if these solar fields were destroyed …they would not be as big of a problem to duplicate as with reactors, and the living hell they would produce, to repair and or replace, if damaged, or destroyed. Why do we still choose the latter in this day and age? Perhaps many of our corporations are becoming out of control, cause there is no one person that "Is Responsible" And all the CEO's have to answer to stock holders...or" will be replaced". Thus creating a negative spiral downward in energy.

We must start appealing to the corporation's conscious, for doing the right thing and give recognition... and give our business to the ones that are improving and caring and are greening up. We could start some kind of honoring system, to help recognize the ones we wish to buy from or invest in. And this may help get the attention of the stockholders to get more involved and caring...This in itself would actually help the CEO's of these companies do what they invariably wish to see get done, but are afraid to bring up to there seniors for the fear of being fired....Or worse... ridiculed and labeled as a "softy" or "Tree Hugger".

Perhaps a lot of this got out of control because of our basic egos for many years have been bred with fear. It is kind of like an on stage feedback ...where everyone is afraid to turn down the volume. What will happen if no one turns gets up to adjust it? I have never seen any case where anyone would let feedback go for more than one or two seconds to find out. Yet how long have we been letting it build up?

No one ever knows, what will happen, because it is corrected...and quickly! Though everyone FEELS that if it does not get attention, soon... it can't be good... and will obviously be very uncomfortable, until it burns out... blows up...or simply breaks down. Though, While everything is at a high fevered SQUEAL!!!... Everyone starts to cover there ears and run! No one can prosper or even think beneficially in this feedback zone. Do you also feel we need to turn it down... and get it all back under control... where it will be more comfortable, for everyone? Then we can all get back to the fun stuff ...dancing, building, living and loving it all ...and each other.

Also we may need to be careful promoting Hydrogen as an energy source. I recently heard on a public radio talk show...the daily expert guest, telling people that hydrogen may be as bad as anything else that reduces ozone. And that no matter how much care is taken in transferring and transporting, "some hydrogen will leak out" just as all gases leak even when " they" say "they won't". And what about the possibility that we could be creating even more dangerous terrorist targets [hydrogen plants] along with the nuclear plants we don't know what to do with... and or even how to fix nuclear plants, as they are starting to find that borax is now eating holes thru these reactors, also now I see they are saying some of the parts won't withstand the pressures they thought it would. [I am afraid to look into this one]. And that the human maintenance has not been checking for these leaks, like they said they would do, or have supposedly been doing. Along with what...inadvertently, possibly, creating more hydrogen bom.

Can't we just for a while concentrate on less disastrous alternative sources such as wave, wind, and solar energy? Soon as hydrogen is accepted, corporate giants may get in and ruin it, by trying to squeeze that last almighty dollar out, by reducing safety and environmental concerns...we have that already, with reactors....it is not working... we still don't know what to do with the waste... or how to protect them from evil doers...or how to maintain them properly or maybe even how to fix them. And no one seemed to have visualized that borax would form in them and start eating holes through the metal, in places hard to reach, and repair. And we trusted them to know what they were doing by testing these parts...which now may becoming another nightmare. They say that the person going into them to fix them will be exposed to over a years worth of radiation, Who ya gonna call?

We need to get away from instant gratification thinking. Let's Open up to something new, fresh, and renewable. The energy is already 'naturally' there begging to be used this way. Let's give it a try.

I believe if our leaders… along with the rest of the world would quickly read and or listen to these books and tapes* listed below, we would have a chance to get thru all this, swiftly and with as little grief as possible and may create a lot of good friends on the way...though I don't think Saddam Hussein would be motivated to change... I believe he is... our motivation... to change... I never read so much and so fast in my life. And I now, have learned the difference between Religion and being Spiritual, and better… how the two can compliment each other, yet, not be the same thing. More importantly, why it is so imperative that we seek to find this difference very soon…there are more reasons here than we thought. And it is really so easy to understand, the way these authors express these Universal Ideas and differences.

If you are a seeker...
This may help you find some new angles, from these Angels.

1] MANIFEST YOUR DESTINY [and others] Tapes or book by Wayne Dyer
2] * GARY ZUKAV'S book – SOUL STORIES, SEAT OF THE SOUL –Tapes or book
3] Or you could Listen to these audio tapes first. They may be the fastest: *THE NEW REVELATIONS-BY NEIL DONALD WALSCH along with his Friendship with God or Communion with God series or CONVERSATIONS WITH GOD
4] THE STARSEED TRANSMISSIONS; THE THIRD MILLENIUM; RETURN OF THE BIRD TRIBE by KEN CAREY [listen to the others first, then these]
5] *** HEALING THE SOUL OF AMERICA and/or EVERYDAY GRACE by MARIANNE WILLIAMSON
6] *THE BOOK OF CO-CREATION 'THE REVELATION' our crisis is a birth-BARBARA MARX HUBBARD
7] SCIENCE OF MIND – This was actually my first introduction to all of these books, tapes... and spouse. And the real conscious beginning to my life's purpose or quest. Please check out their small booklet, published monthly, that has continued the studies started by EARNEST HOLMES (this is NOT' to be confused with scientology ... which we know nothing about, so we can not advise one way or another about that, please ...no offense to anyone.) This is also the way my life partner and I met ... at a Creative Life Drum Circle Thru Reverend Dr. Jesse Jennings He is the minister of the Creative Life Spiritual Center of Houston. TX. He also has an article monthly in this periodical. And it is a very good read... and is very interesting as he answers some of the most " tough" questions about the spiritual practice we all go thru in our everyday lives and he has a knack of making it all fun! And is well worth the time checking him out. By reading the periodical called SCIENCE OF

MIND-change your thinking change your life; a philosophy, a faith, a way of life. Can be ordered online at scienceofmind.com or call 800-247-6463 or check a local bookstore or library.
8] *** www.humanitiesteam.com or humanitysteam.com - or look up Neil Donald Walsch, which you can check this out now. And actually help now.
9] THE LAST HOURS OF ANCIENT SUNLIGHT- THOM HARTMAN – Rachel my spouse, read this, and recommends it. I have not read it yet. Though she had introduced me to all the others…must be good. She has recommended that I include it here.
10] Carolyn Myss –Listen to anything by her, i.e. ENERGY ANATOMY, ANATOMY OF THE SPIRIT, SACRED CONTRACTS; or 'YOUR PRIMAL NATURE'
11]*** The DEAD SEA SCROLLS by GREGG BRADEN
12] 'JUMP TIME' by Jean Houston Ph.D.
13] 'YOUR PRIMAL NATURE' by CAROLYN MYSS
We need to become more a more 'all inclusive'... and less 'separatists' as a society… maybe I am wrong… I have been before...though I personally, at this time... feel...
..Instead of just saying "God Bless America". We need to think a little deeper and perhaps say" GOD BLESS US ALL"… Or "GOD BLESS OUR WORLD or God Bless our Earth"….. Or "GOD BLESS OUR UNIVERSE…".
Otherwise our image comes through as if are coming from a separatists fear base [as opposed to a love base]...as if there is not enough GOD/LOVE TO GO AROUND to bless… everyone… let alone a whole other country.
..IT MUST SEEM LIKE A NEGATIVE REMARK TO EVERYONE ELSE WHO IS NOT
INCLUDED IN THIS "God Bless America"... 'PRIVATE CLUB'. We need to start accentuating the things we all have in common...starting with the 'EARTH'….. Though that would seem logical...yet...It also seems that we need a constant reminder of this...perhaps we could fly a FRESH NEW FLAG 'under' each countries flag. And the only requirement to fly this flag… would be… you have to belong to the Earth…. Or even more inclusive…the universe… The add-on flag could simply have a picture of the EARTH on it. Perhaps with the word 'ONE' or We are all one...or We're all in this together...something more all inclusive...across the front of it, as a constant reminder that all…what 'one' does...now...affects us all...especially now that the world seems… much 'smaller' these days. ' We are... now... all... in the same boat'." Let's not rock it" as the saying goes. Better yet lets start fixing the holes we have put in it...and start treating each other the way we would like to be treated...and we all will have much more fun sailing with a much smoother ride, with less tension. then we can all be rested and prepared to work together when the storms rise.
The sale of this flag could help repair the earth and each other. From the damage we ALL did. Please read Healing the soul of America and listen to Neale Donald Walsch- They can be checked out from the library. These tapes seem to be saying everything we all have been trying to say anyhow, but without knowing how to put the words together, especially without all the dogma involved. And they have the potential to help us… help others. ..if, or when, they ask for help, and you will know more what to say…or some things to refer seekers to.. People knowing of these modalties… CAN save our world, as we now know it. Most of all… these authors admit that these messages are not the only way…"just another way". And even better...not everyone needs to even have read all of these to make a difference in the collective conscious of the planet. It has been discovered that it only takes 10% of a population to effect a knowing in the rest. [The hundredth monkey effect] or read/listen to the LOST DEAD SEA SCROLLS for more info on this.
All in all, we must remember that THE EARTH DOES NOT BELONG TO US...WE BELONG TO THE EARTH. Chief Seattle. And ...Humans are not the only ones on the Earth ...we just act like it.

These two sayings... simply put ...seem to help us bring things back to perspective swiftly. Also I noticed that Marianne Williamson, Neil Donald Walsch and Ed Asner and many many others are now endorsing DJ [Dennis John] ...Ed Asner, coincidently, is one of the leaders for the CONVERSATION WITH GOD SERIES written by Neil Donald Walsch. Please don't think that Neils book and tapes are full of dogma they are more like common sense...actually going thru his material, is more like re-membering, than learning anything knew. This is a collection of things we already know... but somehow have forgotten...yet oddly as we re-discover this information...we feel, very profound, while re-connecting with all this. They are like no other book or tapes that I have ever read or heard. And this series along with Marianne Williamsons, Carolyn Myss, Gary Zukav and Wayne Dyer may have the potential for so much healing, on such a grand scale, for everyone... that makes these best sellers. And must reads...why they don't use these in schools is almost ridicules...it has the potential to avert grief ...almost immediately. And I don't consider it any more religious than teaching a psychology class. It is not the only way ...just another way.

Good Happens
Love Shall Prevail

dave edwards
6990 stearns road
olmsted falls, OH 44138

Robert Eggerling
29 Oak Rd
Mertztown PA 19539-9208

Save-the-Redwoods League

John Forren
U.S. EPA (3EA30)
1650 Arch St.
Phila. PA 19103

Dear Mr. Forren, REC'D DEC 30 2003 Dec 26, 2003

I am writing to comment on the EIS regarding mining practices in W.Va. – namely mountaintop removal. I feel there is NO justifiable reason to allow mining companies to degrade and pollute and ruin the environment in the Appalachians. After having seen the P.B.S. video, "Razing Appalachia", my convictions became even stronger, and I wish to remind everyone concerned with environmental protection that good stewardship of our country must be the top priority. I'm afraid the current administration does not agree, but hopefully agencies will have the balls to challenge them. 1-9

Sincerely, Robert Eggerling
29 Oak Rd.
Mertztown, Pa.
19539

We are owners of a home in Sandstone, W.Va. Dec.

Forwarded by David Rider/R3/USEPA/US on 01/08/2004 10:07 AM -----

Sue Eggert <eggerts@sparc.ecology.uga.edu> 01/06/2004 03:11 PM

To: R3
cc:
Subject: MTM/VF Draft EIS

Mountaintop@EPA comments

6 January 2004

Mr. John Forren
U.S. EPA (3EA33)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

Attached are my comments regarding the Draft EIS on mountaintop coal mining
and valley fills. I have worked in the field of stream ecology for the last 15 years, including 12 years of conducting research (organic matter cycling and macroinvertebrate production) in headwater streams of the southern Appalachian Mountains.

I am glad that this EIS was completed. However, there are some serious problems concerning the scientific basis of statements presented in the Draft EIS. I am especially concerned about the use of qualifying words such as "potential" and "may affect" throughout the EIS, especially in light of the overwhelming scientific evidence presented in the EIS showing 5-6-4
the negative downstream effects of MTM/VF. I sincerely hope that the authors of the Draft EIS consider my attached comments and make the appropriate changes to better reflect the scientific data gathered to date. 3-3

Sincerely,

Susan L. Eggert, Ph.D.
Department of Entomology
University of Georgia
Athens, GA 30602
(706) 542-7880
eggerts@sparc.ecology.uga.edu
(See attached file: MTM_VFcomments.doc)

Draft EIS MTM/VF comments by S.L. Eggert:

The purpose of this Draft EIS is to "*evaluate options for improving agency programs under the Clean Water Act (CWA), Surface Mining Control and Reclamation Act (SMCRA) and the Endangered Species Act (ESA) that will contribute to reducing the adverse environmental impacts of mountaintop mining operations and excess spoil valley fills (MTM/VF) in Appalachia.*" Unfortunately, the preferred alternative focuses more on agency and mining company efficiency rather than reducing adverse environmental impacts of MTM/VF. The following items must be addressed in the final draft of the EIS:

a. Selenium contamination of waters draining MTM/VF sites has repeatedly violated provisions of the Clean Water Act and US EPA's Safe Drinking Standards (66 violations). No solution to this environmental impact has been presented in this EIS. At a minimum, selenium levels in soils to be disturbed by MTM/VF should be included as part of the permitting process. Those areas with high selenium soils should not be disturbed. The clear findings of unhealthy selenium concentrations below valley fills also should be stated in the executive summary for the public to see, rather than buried in numerous appendices. This is a serious human health issue since selenium bioaccumulates. 5-5-4

b. There are references throughout the EIS regarding applying "*functional stream assessments to determine onsite mitigation.*" (i.e. ES-6, ES-7, ES-9, ES-10, II.C-51-54, II.D-6) However, no method of doing these functional assessments has been presented in this EIS. The COE Stream Assessment Protocol for Eastern Kentucky **DOES NOT MEASURE FUNCTIONAL ATTRIBUTES OF STREAMS** (examples of functional measurements include: organic matter decomposition, respiration, primary and secondary production, nutrient cycling). Text in the protocol clearly states that the COE Stream Assessment Protocol for Eastern Kentucky was not designed to measure functional attributes due to cost and inconvenience to the regulated public. "*It is appreciated that a more thorough treatment of modeling stream functions may be accomplished with a more intensive effort. However, this would also take a greater expenditure of resources and may also impose new requirements on the information submitted by applicants.*" (Sparks, Townsend, Hagman and Messer, Aquatic Resources News: a regulatory newsletter, US ACOE, 2003) Note: this publication was not included in the Draft EIS and should be included in the final EIS. The Eastern Kentucky Assessment Protocol only measures **structural and physical** components of streams: taxa richness, EPT richness, mHBI, %Ephemeroptera, %Chironomidae + Oligochaeta, conductivity, riparian width, canopy, and embeddedness (Sparks et al. 2003). Furthermore, a stream assessment protocol developed by the Norfolk District and the Virginia DEQ also did not include functional measures of streams. (Schwinn and Culpepper 2003) [Note: this publication was not included in the Draft EIS and should be included in the final EIS.] The authors of this publication also acknowledge that this protocol does not address stream function, "*Because development of a fully functional stream assessment model could take several months, there was a need for a more rapid assessment tool for the regulatory program that was still objective and quantitative. Therefore, the Norfolk District and the Virginia DEQ decided to pursue an interim stream assessment protocol that could bridge the gap between the subjective measures currently in place and a full functional assessment model. The interim stream assessment approach is <u>not</u> a full functional assessment model in the sense that the Corps' Hydro-Geomorphic (HGM) assessment or the U.S. Fish and Wildlife Service's Habitat Evaluation Procedures (HEP) are.*" "*Therefore, while specific stream ecological functions have not been identified, it is presumed that the highest sustainable ecological functions occur in the least disturbed streams relative to moderately disturbed and most disturbed stream systems.*" (Schwinn and Culpepper, 2003). 6-6-4

I applaud the fact that the draft EIS suggests that functional measurements of streams will be used to assess streams impacted by MTM/VF. The HGM method designed by the COE for wetlands is a good one and has been used successfully for wetland mitigation. Additional time and money should be spent to come up with a truly functional approach for stream assessments. 6-6-4

c. The total length of stream miles previously impacted by MTM/VF are underestimated in the draft EIS. In the "Landscape Scale Cumulative Impact Study of Mountaintop Mining Operations" conducted by US EPA Region 3 (Appendix I) impacted stream estimates were derived from synthetic stream networks. The authors of the study admit that their methods probably underestimate the actual number of stream miles impacted by MTM/VF, "*For the data used in the cumulative impact study a contributing area of 30 acres was selected to generate a stream. There is some uncertainty is this selection given that permits in Kentucky have indicated perennial streams in watersheds smaller than 10 acres. Therefore; the synthetic stream network may underestimate stream length.*" They also admit that they did not verify the accuracy of their synthetic network with actual stream lengths in the field, "*The synthetic stream network was not ground truthed.*" (USEPA 2002, Appendix I, p. 24). Furthermore, their results did not include downstream impacts to streams, "*Indirect impacts to streams such as those that would occur downstream from filled or mined out stream areas were not evaluated in this analysis. As such, results of the direct impacts of stream metrics likely underestimates total impacts to streams.*" (USEPA 2002, Appendix I, p. iii-iv). The potential inaccuracy of the impacted stream miles (in this case an underestimate of the potential environmental damage inflicted by MTM/VF) **MUST** be stated upfront in the executive summary and not hidden from the public in an appendix. 5-7-4

d. The misstatement in the Executive Summary that, "*Some streams below fills showed biological assemblages and water quality of good quality comparable to reference streams.*" (ES-4) must be removed from the draft EIS. Streams below fills were in good condition or better only 33% of the time according to US EPA data, (Green and Passmore, 2000 Appendix D). Unmined sites scored in the good or very good range 91% of the time (Green and Passmore, 2000 Appendix D). Actual statements from the US EPA report are below:

In contrast to the unmined sites, the filled sites scored over the entire range of conditions. Over all five seasons, the filled sites scored in the very good range 14% of the time, in the good range 19% of the time, in the fair range 53% of the time, in the poor range 12% of the time, and in the very poor range only 1% of the time. We believe the range of biological conditions found in the filled sites can be explained by differences in water quality (see section 7.0 for a discussion of the associations between biological condition and conductivity). (Green and Passmore, 2000 Appendix D). 5-6-4

In the seasons with complete data sets (spring 1999, winter 2000, and spring 2000), the unmined sites generally scored in the good to very good range using the WVDEP Stream Condition Index. Over all five seasons, the unmined sites scored in the very good range 72% of the time and in the good range 19% of the time (table 2). (Green and Passmore, 2000 Appendix D).

There is a huge difference between 33% and 91%. Clearly, valley fills negatively impact stream macroinvertebrates. **The attempt to mislead the public with respect to the negative affects of MTM/VF on aquatic biota by the authors of the draft EIS is unethical.** 6-4-4

Section I-2. Under "Purpose of the EIS" heading, "*Unites*" should be spelled "United." Please correct this error throughout the EIS.

e. II.C-10. According to the draft EIS, "*The SMCRA regulations do not currently contain requirements for biological monitoring or documenting physical attributes of streams.*" How will adverse impacts on aquatic biota be monitored if biological monitoring is not required? Some provision for the requirement of biological monitoring should be included in the permitting process and described in the final EIS. 6-1-3

f. Monitoring and inspection. (II.C-57). This section is extremely lacking in details as to how monitoring will be accomplished. Storm water monitoring should be required to accurately quantify pollutant loading. Baseflow monitoring minimizes environmental effects of MTM/VF.

g. II.D-8. "unnaceptable" is spelled incorrectly. Regarding the advance veto powers of EPA in cases where it finds that mountaintop mining would have unacceptable adverse effects on certain aquatic resources, I hope that someday EPA finds the courage to exercise its CWA Section 404 (c) authority on this issue. Based on the data presented in every study associated with this EIS, mountaintop mining and valley filling causes and contributes to significant degradation of waters of the U.S., which directly violates 40 CFR 230.10(c) of Section 404 (b) of the CWA.

h. II.D-9. The statement, "*Further, the EIS studies did not conclude that impacts documented below MTM/VF operations cause or contribute to significant degradation of waters of the U.S. [40 CFR 230.10(c)].*" is **completely false**. Data presented in every study associated with this EIS, demonstrated that mountaintop mining and valley filling causes and contributes to significant degradation of waters of the U.S., which directly violates 40 CFR 230.10(c) of Section 404 (b) of the CWA. To just name a few, consider the increased selenium concentrations below valley fills that violated safe drinking water standards (66 times), the increase in concentrations of sulfate, total dissolved solids, total calcium, total magnesium, hardness, total manganese, dissolved manganese, specific conductance, alkalinity, total potassium, acidity and nitrate/nitrite below valley fills, the shift from pollution sensitive macroinvertebrates to pollution tolerant ones below valley fills, the decreased mean particle size and greater number of particles less than 2 mm in size below valley fills, and the complete loss of more than 1,200 miles of headwater streams? A paragraph on page IIID.13 specifically states that there is probable cause between mining upstream and increased conductivity in stream water below the fills: "*In general, the filled and filled/residential classes had substantially higher median conductivity than the unmined and mined classes. It is important to note that the filled sites generally had comparable or higher conductivity than the filled/residential sites within a watershed, indicating that the* ***probable cause*** *of the increase in the total dissolved solids at the filled/residential sites was the mining activity upstream rather than the residences.*" 5-5-1

i. III.C-12. In reference to the last bullet under "Biological": The statement "*They enhance sediment transport downstream by breaking down the leaf material.*" should read "They enhance **fine organic matter** transport downstream by breaking down the leaf material." This phrase should also be corrected on the bottom of page 10 of the Proceedings of the Aquatic Ecosystem Enhancement Symposium, Appendix D. 5-6-4

j. III.C-20. The statement, "*In fact, the establishment of ponds or wetlands on benches or at the toe of mined areas may tend to limit the effect of disturbances on the downstream watersheds (Wallace, B. in EPA et al. March 20, 2000).*" is not complete. It also should be added here that B. Wallace and R. Powell stated that ponds do not replace the structure and function of original first and second order watersheds (Proceedings of Aquatic Ecosystem Enhancement Symposium, Appendix D, p. 18 and 19).

k. III.D-2. "*A cumulative impact study of the length of stream directly impacted within the study area was performed by the USEPA (2002). The stream lengths evaluated were based on the same synthetic stream network as the OSM fill inventory which includes streams located upslope from the USGS blueline streams. This cumulative impact study differed from the previously discussed studies in that the estimate of stream length impacted was based on length of stream filled and length of stream mined through. This study estimated 1,208 miles of direct impact to stream systems in the study area based on permits issued in the last ten years (1992-2002). This estimated of filled or mined through streams represents 2.05% of the stream miles in the study area.*" These values of stream miles lost are underestimates based on the authors' qualifications of the methods used in the study. See my comments above. 5-7-2

l. III.D-5. "*The extent to which energy loss may be offset by input from reclamation of the mine site and adjacent undisturbed areas is unknown. Impacts that this type of net energy "change" would have on the downstream aquatic environment is uncertain and requires further investigation.*" Since trees don't grow very well on reclaimed mine spoil (Handel, 2002 Appendix E), and ponds do not replace the function of 1st order streams (Proceedings of Aquatic Ecosystem Enhancement Symposium, Appendix D, p. 18 and 19), there is probably little offset contributed by reclaimed mine sites. 9-3-4

m. III.D-14, 3rd paragraph. "*This study also found very low percentages of mayflies (ephemeroptera) at* ***this*** *sites and elevated surface water conductivity, hardness and sulfates.*" should read, "*This study also found very low percentages of mayflies (ephemeroptera) at* ***these*** *sites and elevated surface water conductivity, hardness and sulfates.*"

n.III.D-19. "*Creation of other ponds and wetland resources on mined land has shown more promise. Wallace (EPA 2000) suggested that these types of systems can be important sites of nutrient storage and uptake provided that a sufficiently vegetated littoral zone is present.*" B. Wallace also said that ponds cannot replace pre-mining streams (Proceedings of Aquatic Ecosystem Enhancement Symposium, Appendix D, p. 19). 14-2-4

o.III.F-3. 2nd paragraph. "*Tress*" should be spelled "trees"

7-5-4

p. Fig. III.F-2. The legend for this figure has no shading on my EIS copy, so I cannot tell which

part of the figure refers to amphibians, birds, mammals or reptiles.

q. III.F-7. last paragraph. *"Species richness and abundance is lower on reclaimed grasslands than shrub/pole, fragmented forest, and intact forest habitats (Wood and Edwards, 2001)."* Species richness and abundance of what? This sentence contradicts the first sentence of the paragraph. *"Species richness and abundance of songbirds is higher in shrub/pole habitats of mountaintop mining sites than in grassland, fragmented forest, and intact forest habitats (Wood and Edwards, 2001; Canterbury, 2001)."* Please rephrase.

r. III.F-9. *"Burton and Lykens, 1975"* should read "Burton and **Likens**, 1975." This reference is not listed in the References section of the EIS.

7-6-4

s. III.F-16. How much carbon sequestration has been lost due to MTM/VF? Since trees do not grow to any significant degree on reclaimed valley fills (Handel, 2002, Appendix E), hasn't MTM/VF reduced carbon sequestration? Please address this question in the EIS.

t. III.G-3. Peak Flow Study. If trees are unable to survive on reclaimed MTM/VF sites (Handel, 2002, Appendix E), why bother including data regarding estimated peak flows on permitted post-mining forested sites. This scenario will never happen.

u. IV.A-3. The direct burial of stream segments by MTM/VF is not a long-term irretrievable commitment of resources if it is not permitted to occur in the first place. The direct burial of streams violates 40 CFR 230.10(c) of Section 404 (b) of the CWA. Unfortunately, US EPA is unwilling and/or unable to use its advance veto power to minimize, and/or stop the downstream degradation occurring due to MTM/VF.

5-7-1

v. IV.A-4. *"The loss of these reserves would not have an immediate, irreversible effect on energy production, because sufficient coal reserves exist elsewhere to meet current energy demands. However, long-term effects on energy production could occur, since rendering some Appalachian surface mining coal reserves unminable could ultimately hasten reserve depletion when other coal sources dwindle."* Other clean, renewable energy sources exist, such as wind and solar power. If these energy sources were currently being developed, long-term effects of unminable coal reserves would be offset. Please include wind and solar energy as options in this EIS.

11-9-4

w. IV.B-3. The statement, *"No widely-accepted, standardized testing procedures exist for measuring the presence/absence of the fine and coarse organic matter and consequent energy contributions of stream. Thus, the EIS stream chemistries studies in West Virginia and Kentucky did not document the effect of stream loss on the downstream energy continuum,"* is false. Widely-accepted, standardized testing procedures for measuring the presence/absence of the fine and coarse organic matter and consequent energy contributions of stream do exist in a book titled Methods in Stream Ecology (F. Hauer and G. Lamberti, 1996). It is unclear why these measurements were not included as part of the EIS studies.

5-5-4

x. IV.B-3. *"In the absence of standardized testing and research, it is not clear to what extent this direct stream loss indirectly affects downstream aquatic life. It is also not evident to what degree reclamation and mitigation (e.g., drainage control and revegetation) offset this organic nutrient reduction. The direct impacts of stream loss are permanent, but the downstream effect from organic energy loss may be temporary.* The data presented in each of the studies in Appendix D directly contradict this statement. Valley fills result in a shift from pollution sensitive macroinvertebrate species to pollution tolerant species. The evidence is undisputable.

Existing CWA programs indirectly address these effects through technology-based effluent limits, state water quality standards, TMDLs, and other provisions designed to assure overall watershed health." Please explain how TMDLs address these effects. Are MTM/VF effects currently being included in TMDLs? If not, they should be.

5-5-4

y. IV.B-4. The statement, *"Headwater stream systems do not have a tremendous capacity to provide purification functions,"* is absolutely false based on published scientific literature (Meyer 1990, Peterson et al. 2001). **EIS Authors: please provide the scientific evidence for your statement, *"Headwater stream systems do not have a tremendous capacity to provide purification functions."*** If you have none, delete the statement.

z. IV.B-9. The protocol described in paragraph 3 does **NOT** measure aquatic function. See my comments above.

aa. IV.B-11. *"• Consistent definitions of stream characteristics and field methods for delineation; • Clarification of OSM stream buffer zone rule and development of excess spoil requirements for alternatives analysis, avoidance, and minimization; • Refined science-based protocols for assessing aquatic function, making permit decisions, and setting mitigation requirements;"* I agree with each of these statements. In particular, time, money and effort must be spent on developing a truly functional assessment protocol for headwater streams. The current protocols do not consider functional measures. There are already methods in the scientific literature designed to measure stream function (Hauer and Lamberti 1996) and there are many scientists who are already trained in these methods. Ask them for assistance with this task.

14-2-4

ab. IV.B-12. *"BMP's"*. Please elaborate on this topic. They are mentioned repeatedly in the EIS, but never discussed in detail. What specific BMP's would be used? Any references for these?

ac. IV.B-12. *"better integrated public participation."* Please elaborate on this topic also. How would it be improved beyond the process already in place?

ad. IV.D-4. *"Burton and Lykens, 1975"* should read "Burton and **Likens**, 1975." This reference is not listed in the References section of the EIS.

7-6-4

ae. IV.D-6. The biological assessment is a good idea and probably should have been done much earlier in this whole process. A complete biotic inventory of impacted areas should also be required for the permitting process.

8-1-2

Clara Else

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"celse@worldbank.org" <celse 01/06/2004 02:51 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Anyone who has seen the effects of mountaintop removal mining decades after it is finished understands what total devastation it causes. I was born in Montana 50 years ago; the area near my hometown has never recovered.

Please ask the administration to use our incredible resources, technology and training to produce renewable energy sources rather than destroying vast natural resources that cannot be replaced. 1-9

Sincerely,

Clara Else
Clara Else
16517 Magnolia Court
Silver Spring, MD 20905
celse@worldbank.org

Susan Emberley

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"susan-emberley@mn.rr.com" <susan-emberley 01/06/2004 12:21 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

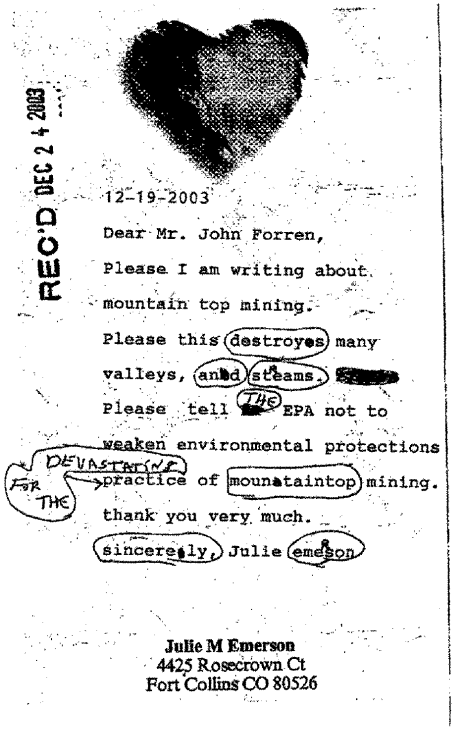
I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining.

According to the draft EIS, the environmental effects of mountaintop removal are widespread, devastating and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife and no safeguards for the communities that depend on the region's natural resources for themselves and future generations. 1-7

I urge you to immediately amend the draft EIS accordingly.

Sincerely,

Susan Emberley
9795 Woodridge Drive
Eden Prairie, MN 55347
susan-emberley@mn.rr.com



REC'D DEC 24 2003

12-19-2003

Dear Mr. John Forren,

Please I am writing about mountain top mining. 1-9

Please this destroyes many valleys, anbd steams. [redacted]

Please tell [redacted] EPA not to weaken environmental protections 1-10

practice of mounataintop mining.

thank you very much.

sincerely, Julie emerson

Julie M Emerson
4425 Rosecrown Ct
Fort Collins CO 80526

Environmental Protection Agency REC'D AUG 27 2003

Emrich
Hc 73 Box 596
Pence Springs, WV
24962

Mr. Forren, 8/25/2003

The Environmental Impact Statement on Mountain Top Removal/Valley Fill Mining should make it clear to everyone that this mining practice must cease immediately, as it is too devastating environmentally, yet it has failed to make any such recommendation. God gave us this planet Earth with an atmosphere and habitats where life could continue and diverse species could co-exist. When the people in government and the mega' for profit' corporations see money as the only value, they lose sight of the natural balances that make the land capable of supporting life, then the people and all life falls victim to the kind of greed that will eventually render our planet incapable of supporting higher life forms and we will all suffocate together, regardless of how many big numbers of dollars a corporation or a politician or a person controls. Could it be that the love of money has created in these officials of the regulatory agencies a "blind eye"? Are they stalling for time with these studies so that when they decide to stop it is already a done deal and there is no coal left to be mined? 1-9

Burning coal and fossil fuels creates air pollution, clearing away the forests and polluting our water and oceans reduces the amount of oxygen that is replenished to our atmosphere. This practice of Mountain Top Removal/Valley Fill Mining is no less than the sale and devastation of our habitat and our home, for corporate greed to reap their false profits.

Once a mountain top has been removed, it is gone, so what is left to study environmentally? The effects that the resulting flooding and loss of good water and and living forest has on the mood and economy of the people who are trying to go on living in these devastated areas?

The EIS proposal is to study how to get inter-agency co-operation so that the coal companies can speed up their operations and sell more coal faster at a higher profit, just what we the people do not need.

Gone is gone!Stop Mountain Top Removal/Valley Fill Mining NOW!

Sincerely,

LindaLeeeEmrich
Pence Springs, W.V.

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"ksenders@yahoo.c
om" <ksenders To: R3 Mountaintop@EPA
cc:
01/06/2004 07:15 Subject: Please Stop Destructive Mountaintop Removal Mining
PM

Dear Mr. John Forren, Project Manager,

Please work to amend the EPA's draft environmental impact statement to limit the effects of mountaintop removal mining. I find it absolutely terrible that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

We cannot continue to destroy this country of ours and allow big companies do wreck havoc wherever they please just for their own profits. What are we going to leave our children and grandchildren to cope with?

Sincerely,

Kathleen Enders
13700 SW Ascension Dr
Tigard, OR 97223
ksenders@yahoo.com

REC'D JAN 2 6 2004

At Christmas Dinner 2003, mostly sons and daughters of coal miners saw the photograph of mountain-top mining in the Appalachians. They all were shocked, but knew of it as matter "fact" of the coal fields and miners. 10-6-2

I am keeping the photograph, and have written to politicians. I have yet to hear from any body. There are no words left. Or justification.

Nancy M. Erps
2854 Gray Ridge Road
Princeton, WV 24740

Does anyone care or know about the water problem created by such mining? Does anyone understand? 5-8-2

Nancy M. Erps 2254 Hickory Ridge Road Princeton, WV 24740 December 25, 2003
Nancy M. Erps

[redacted]

Barbara J. Erps
253 Hickory St.
Princeton WV 24740
Teacher - Parent

Robert D. Erps
Budget P. Erps
Jill Thomas
Johnson
Sue Erps
Sarah Erps

P. O. Box 691
Fort Ashby, WV 26719
August 24, 2003

REC'D AUG 27 2003

John Forren
US EPA (3ES30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren:

This letter is a comment on the EIS for surface mining, including mountaintop removal mining and associated valley fills.

I am appalled by the blatant attempt by the coal industry (and associated government agencies) to streamline the permit process without making any recommendations about how to prevent or lessen the substantial damage done to the environment by strip mining—effects which were noted in the EIS studies. 1-9

How sad that the EPA has become little more than an organ for big coal when it wants to rape the evironment, which it has done with disastrous consequences over many years.

Whatever happened to "Protection" in your agency's title? You are supposed to work on the public's behalf to protect "our" environment. You are failing!

Sincerely,

Craig Etchison

Craig Etchison

CC: Senator Rockefeller
Senator Byrd

DeliveredDate: 01/04/2004 01:20:28 PM

Please stop destroying the Appalachian Mountains. More money needs to be spent on alternative energy sources. Kaeneva
@frontiernet.net 1-13

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

"aevans@doe.state .vt.us" <aevans 01/06/2004 03:33 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

It's outrageous that the Bush administration plans to permit the destruction of Appalachian valleys and streams by coal companies' use of mining practices that level mountaintops, wipe out forests, and dump huge amounts of debris in streambeds.

According to the draft Environmental Impact Study, the environmental effects of mountaintop removal are widespread, devastating and permanent. Yet the draft EIS sets no limit on the forestlands and streams that can be destroyed, and offers no protection for imperiled wildlife nor safeguards for the communities that depend on the region's natural resources for themselves and future generations. 1-5

The Bush administration ignores its own impact studies and proposes weakening already-existing environmental protections. Don't let this happen! 1-10

Sincerely,
Alice M. Evans, Ph.D.

Alice Evans
p.o. box 266
Waitsfield, VT 05673
aevans@doe.state.vt.us

DeliveredDate: 01/06/2004 09:45:17 AM

I am writing to express my opposition to mountaintop removal and valley fills and any change in the rule protecting stream buffer zones. I'm disappointed and angry that the federal government is ignoring its own studies by proposing to reduce protections for people and the environment. I demand a new study that looks at the alternatives to prevent new mountaintop removal and valley fill operations and to stop the existing ones within 5 years or by the expiration of the current mining permit, whichever date occurs first. 1-9 1-10

Thank you.

Sincerely,
Gaye Evans
107 West Main Street
Knoxville, TN 37902

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"73514.254
@compuserve.com" To: R3 Mountaintop@EPA
<73514.254 cc:
Subject: Please Stop Destructive Mountaintop
Removal Mining
01/06/2004 08:54
PM

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining.

It is not acceptable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

I urge you to immediately amend the draft EIS accordingly.

Sincerely,

McNair Ezzard
PO Box 7040
Van Nuys, CA 91409
73514.254@compuserve.com

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

p_farino@yahoo.com To: R3 Mountaintop@EPA
cc:
12/25/2003 10:58 AM Subject: No mountaintop removal for coal

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

Stop destroying the Appalachias with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. 1-9

.

Sincerely,

Pete Farino
1625 Grasscreek Dr.
San Dimas, California 91773

cc:
Senator Barbara Boxer
Representative David Dreier
Senator Dianne Feinstein

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

Peter Farino
<p_farino@yahoo.com> To: R3 Mountaintop@EPA
cc:
Subject: NO MORE MOUNTAINTOP REMOVAL FOR COAL
01/04/2004 10:29 AM

January 4, 2004

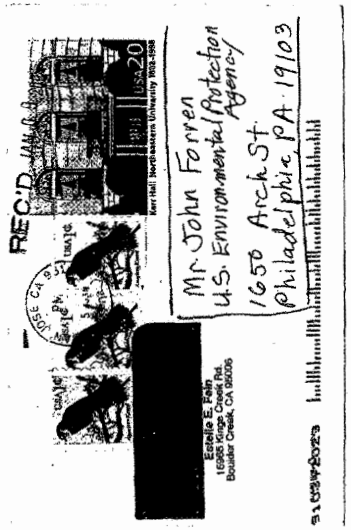
Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear John Forren,

STOP DESTROYING OUR MOUNTAINS, FORESTS, AND STREAMS. 1-9

Sincerely,

Peter Farino
1625 Grasscreek dr.
San Dimas, CA 91773
USA



1/5/04

Dear Mr. Forren:

Please consider the impacts of your planned mountaintop removal plan. Your own E.I.S lists devasting outcomes of this "preferred alternative". Surely the damage to streams & forests & the communities surrounding them is not worth the backwards step - letting coal mining determine our energy future.

Estelle E. Fein
15995 Kings Creek Rd
Boulder Creek, CA 95006

1-10

Robert Fener
1011 Swapping Camp Road
Amherst, Virginia 24521

REC'D AUG 13 2003

John Forren
U.S.EPA (3EA30)
1650 Arch Street
Philadelphia PA 19103

August 8, 2003

Dear Mr. Forren:

Regarding the EIS on Mountaintop Mining and Valley Fills in Appalachia, I will make my comments brief. NO!!!!!!!!! Coal, despite a great add campaign is not a clean safe power source. I'm sure you are quite aware of the health ramifications of coal fired power plants. Additionally the air pollution is wiping out our forests and countless species. To then say it is economical and wise to level mountains and then fill up valleys with the waste is just insane. Few will profit and many more will suffer. It is time we take a stand for sanity in our national energy policy and yes, my house is entirely solar powered with photovoltaic panels. 1-9

Thank you for your attention in this matter.

Sincerely,

Robert Fener

REC'D DEC 2 9 2003

Robert Fener
1011 Swapping Camp Road
Amherst, Virginia 24521

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

December 24,2003

Dear Mr. Forren:

Regarding Mountaintop Removal, I will be brief and to the point. The Bush plan is bad science. Coal has destroyed Appalachia. Coal fired power plant pollution has impacted our air, soil and waterways. Pollution is killing our forests and is the leading source of mercury, which is endangering anyone who eats fish. Coal is an obsolete technology in view of alternative energy sources. I live in Virginia in a home entirely dependent on the sun for heating, hot water and photovoltaic electricity. Yes I do use backup systems, but two hours of generator run time for the last eight months is not too bad. To not think mountaintop removal is a major ecological disaster is to show a level of stupidity that is aggressively ignorant. 1-9

Thank you for allowing me to comment on this matter.

Sincerely,

Robert Fener

REC'D JAN 0 5 2004

January 2, 2004

Dear Mr. Forren;

Mountaintop removal is devastating to the environment and communities. Our government must not continue to allow Coal Companies to destroy Appalachia with mining practices that level mountaintops, wipe out forest and destroy communites. 1-9

Our government must consider alternatives to MTR and implement measures to protect our streams, wildlife, forests and communites. Please listen.

Peace,

Denise Ferguson
313 Carper St.
South Charleston, WV 25303

Steve Fesenmaier
<fesenms@wvlc.lib .wv.us>
08/14/03 02:10 PM

To: R3 Mountaintop@EPA
cc:
Subject: Comment on Mountaintop Removal Mining

Mountaintop Removal Mining has to be strictly regulated according to the current existing laws.
Watershed should be maintained and all downstream damaged should be minimized. During the last decade the WV state government has not enforced the existing laws. This negligence should be stopped immediately.- 1-13

Steve Fesenmaier 907 Churchill Circle Charleston, WV 25314
(304)345-5850
(See attached file: fesenms.vcf)

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"figel@alum.mit.edu" <figel
01/06/2004 12:33 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Please amend the EPA's draft environmental impact statement to limit the effects of harmful mountaintop removal mining.

As a Colorado resident, I've seen the effects of irresponsible mining practices in various sites along the Rockies. Irresponsible mining does irreparable harm to the native wildlife and the resultant mine tailings contaminate the watersheds that supply our drinking water. 1-9

If the Bush administration lets coal companies destroy Appalachia by not amending the EPA's impact statement; while also putting more mercury into the environment through relaxed regulations, there can be no claim that anyone in the White House cares about the health of all our sons and daughters.

I urge you to immediately amend the draft EIS accordingly.

Sincerely,

Arthur Figel
Arthur Figel
3370 15th St
Boulder, CO 80304
figel@alum.mit.edu

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"fishkend@earthlink.net" <fishkend 01/06/2004 12:33 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Stop destroying the mountains of Appalacia in search of coal with no regard for the environment! You must amend the EPA's draft environmental impact statement. Stripping of mountain tops is devastating and permanent.

Get a clue, the days of oil and coal are numbered. Put the time, energy, and resouces into transitioning to other fuel sources. 1-9

Consideration,
Patrice Fisher
5709 Fallsgrove Street
Los Angeles, CA 90016
fishkend@earthlink.net

Gerry and Louise Fitzgerald
398 Carlyle Road
Martinsburg, WV 25401

January 2, 2004

Mr. John Forren
US EPA
1650 Arch St
Philadelphia PA 19103

REC'D JAN 0 5 2004

Dear Sir:

I am writing you on the issue of mountain top removal. This is an issue of particular concern for West Virginians. For generations West Virginians have supplied this nation with abundant coal. This natural resource, while dangerous to extract, provided a decent living for the people of West Virginia. Now the coal companies have a found a way, via mountain top removal, to take even this marginal life from us at the same time destroying our very homes.

Mountain top removal has devastated our environment by reducing the very mountains themselves, filling our valley streams and cutting vast acreages of timber. All these actions have had a severe impact on the lives of local communities. Jobs are lost because this method of coal extraction employs far fewer people than deep mining. The losses of jobs mean communities disappear. Those that remain are damaged further by the blasting. Next come the rains. Floods occur because there is no vegetation on the mountains and stream valleys have been filled. This is usually the final blow to a community.

Do not be fooled by promises of reclamations and flat land for development and new homes. Nothing but an imported weed will grow on this "reclaimed" land. The forest is gone and cannot be replanted in this depleted soil. Who will open new businesses and buy the homes projected to come to this reclaimed land? There are no people because there are no jobs and the communities are gone. 1-9

Mountain top removal benefits no one but the coal companies. It leaves in its wake a devastated environment and abandoned communities. Do not make it easier for those who despoil our state. Mountain top removal should be prohibited for it violates many current environmental laws. Please uphold what your agency is pledged to do and protect the environment.

Sincerely,

Gerry Fitzgerald
Louise Fitzgerald

-- Forwarded by David Rider/R3/USEPA/US on 01/06/2004 03:55 PM -----

ASD <asd@eva.org>
01/02/2004 03:59 PM
To: R3 Mountaintop@EPA
cc:
Subject: mountaintop removal mining practices

January 2, 2004

Mr. John Forren
US Environmental Protection Agency
1650 Arch Street
Philadelphia, Pennsylvania 19103

Dear Mr. Forren:

I was shocked to learn of the EPA's plan to allow mountaintop removal mining practices to be accelerated and expanded.

Many studies of the impacts of mountaintop removal, including President Bush's own Environmental Impact Statement, make clear how much damage is done to homes, streams, forests and fishing and wildlife through this practice. The proposed new rules will increase all of these problems by eliminating limits on the size of Valley fills and by reducing a 100 foot stream zone protection area. 1-10

Mr. Forren, I live in Appalachia where this mountaintop removal takes place. Since moving here in 1978, I've seen the scars which this kind of practice leaves. I have numerous friends who make their living in the coal industry and I am a strong supporter of economic development throughout the coalfields. But economic development need not and should not continue to occur at the expense of the environment, local farms and local communities.

I urge you to seek another alternative, one which places strong limits on this highly destructive practice and allows local communities to maintain and build upon the natural resource base which they have. 1-7

Thank you,

Anthony Flaccavento

Executive Director

Appalachian Sustainable Development

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

BettyB.Fleming@verizon.net
01/06/2004 03:00 PM
To: R3 Mountaintop@EPA
cc:
Subject: Appalachia Considerations

Project Manager John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Project Manager Forren,

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. 1-9

Please reconsider both the environmental and political consequences on this practice.

Sincerely,

Agatha (Betty) Fleming
456 Riverside Drive
Princeton, New Jersey 08540-5421

cc:
Senator Jon Corzine
President George W. Bush
Vice President Richard Cheney
Representative Rush Holt
Senator Frank Lautenberg

Catherine Fleischman
Date: 1/07/2004
City: Canton State: VA Zip: 23123

Live as comfortably as we do coal, and timber have been harvested form this state since its inception. The legacy of this harvest is now left to the residents. We have the choice of living with the remaining ecosystems or destroying them for the coal left in the ground. It makes absolutely no sense to me to remove a mountain for what we know is a very inefficient poisonous fuel that we already have the technology to avoid using. It is just plain to expensive to sacrifice what is pristine and beautiful for something we do not need and need to do without. Please let it be known to this organization that Mountain Top Removal for coal is the worst way to support a sustainable comfortable economy. West Virginia will be much better off saving these mountains, streams and communities for low impact farming and recreational industries. 1-9

Sincerely,
Catherine Fleischman
1304 Sports Lake Road
New Canton, VA. 23123

DeliveredDate: 01/04/2004 06:06:12 PM

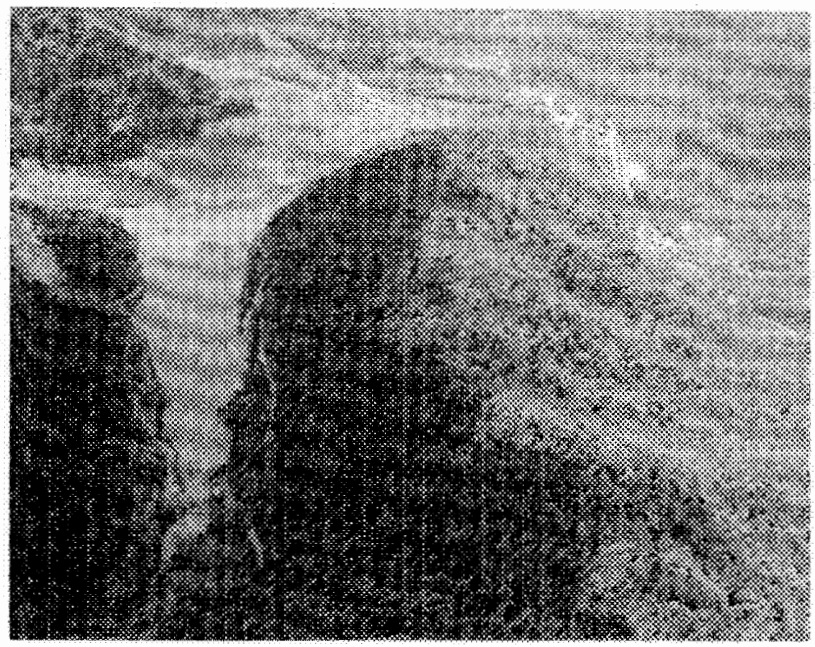
As a woman, mother, grandmother and American I must state that I am opposed to mountaintop removal mining and valley fills! 1-9

Please, will our grandchildren or their children see any beauty in America?

Marsha Fishman
1275 Bradford
Coppell, TX 75019

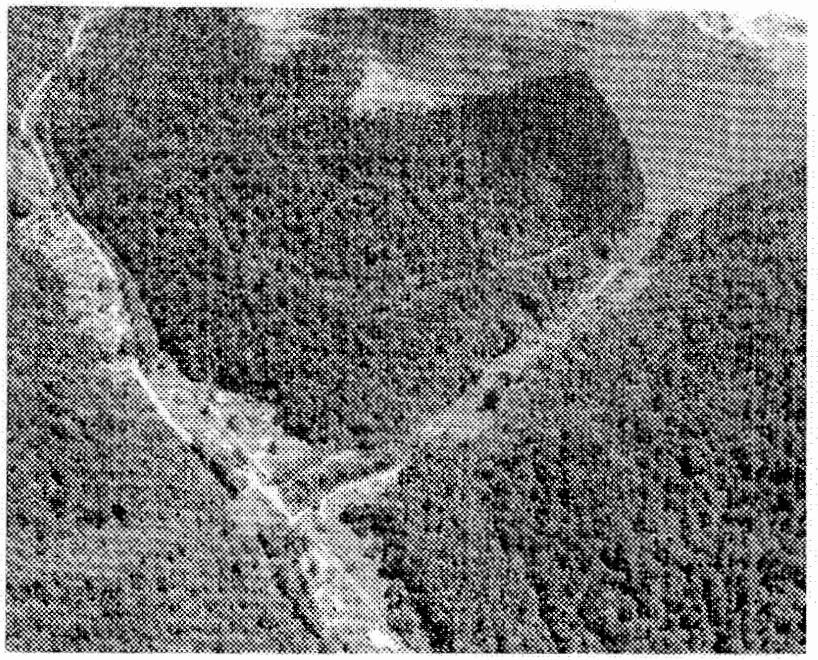
Impoundment above Sundial

Photo provided by Janet Fout, Speaker # 17 on 7/24/03 Charleston Eve



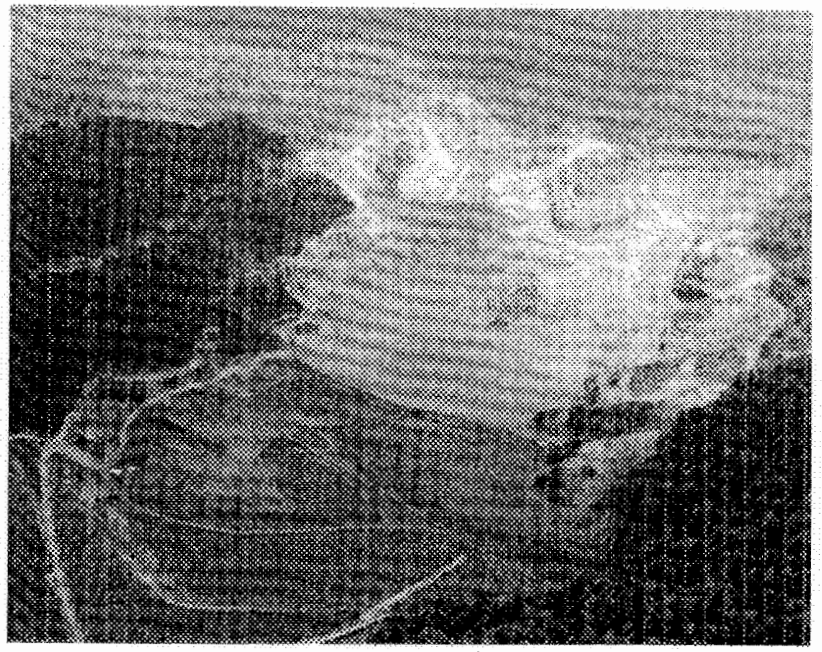
Valleyfill near a community | 10-9

Photo provided by Janet Fout, Speaker #17 on 7/24/03 Charleston Evening Sess | 10-6-5



Brushy Fork impoundment

Photo provided by Janet Fout, Speaker #17 on 7/24/03 Charleston Evening



January 1, 2004

John Darren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia Pa., 19103

REC'D JAN 05 2004

Dear John—

I'm appealing to you as a Human Being now. I've already attended court hearings, environmental hearings. I've protested and begged the congress and legislative and regulating agencies all to no avail.

That 5,000 page study has already concluded that Montanistic removal is already destroying approaching streams — Joseph so why aren't you responding with concrete reductions on permits. You're in danger of losing your credibility as are our other representatives.

Either you must prohibit the environment as your name indicates or come out of the closet and change your name to Corporate Protection Agency as most over Congress — Legislature and our President and our religious community.

(over)

1-5

It's really up to you. My children and grandchildren are going to pay the price for the decisions you make now.

George Bush has already shown his colors. He wants to use the scarce energy for his ambitions.

William Ruckelshaus must have decision. He was our one true ally who cares about this planet and its inhabitants. He never leaves up another agency.

We are at the cross roads now. Either we stop and clean up the world or keep on destroying it.

What we are doing now is immoral and unacceptable and we must take responsibility for it.

Sincerely,

Winnie Fox
2687 First Ave
Huntington, W.Va.
25702

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"lufrank@comcast.net" <lufrank
01/06/2004 12:21 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Please amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. My grandkids would like to find valley streams that still have live fish! 1-9
Why has the EPA lost its conscience?????
Sincerely,

Luther E. Franklin
19510 SE May Valley Rd
Issaquah, WA 98027
lufrank@comcast.net

I support Mountain Top Removal and Valley Fills because: 1-11

1. We have lived in this area all of our lives and we do not see the devastation the environmentalists complain about. Our water is relatively clean. Untreated Sewage is the biggest problem for clean water.

2. The economic base of Eastern Kentucky depends upon Coal Mining. Most of us work in mining or a related business. The economy of the southeastern U.S. depends upon energy from Kentucky Coal. 11-1-2

3. The habitat for wildlife is not destroyed, it is enhanced. The Elk, Deer, Turkey and smaller animals are more abundant than they have been for 100 years. 7-2-2

4. The percentage of land disturbed by mining is very minute as a whole and the Reclamation Laws provide for this land to be adequately restored.

5. Much Surface Mining today is the re-mining of lands mined prior to the Surface Mining Act. Reclamation today is much, much better than before the Act, and sediment control is actually better because the erosion from the old mining is uncontrolled. All fills and slopes are now properly engineered and vegetated and therefore safer. 19-3-2

6. Many of the people who oppose surface mining do not even live here or in an area where mining is the economic base that people depend on it for their livelihood. They have no right to tell us what to do.

7. Many of the people take the luxury of Electricity for granted. If it wasn't for coal mining they would either be living in the dark or paying a lot higher prices for that same luxury. Other methods of providing Electricity have been proven to be more dangerous, causing more problems to the environmental system and more expensive.

Tim Frasine
Chief Engineer
Bledsoe Coal Corporation
James River Coal Company
P.O. Box 31
Slemp, Ky 41763

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"vfrazz@juno.com"
<vfrazz To: R3 Mountaintop@EPA
cc:
01/07/2004 10:24 AM Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

Sincerely,

Vincent Frazzetta
169 Platt St. 108
Milford, CT 06460
vfrazz@juno.com

REC'D DEC 0 1 2003

SUZAN FRECON
(Member Linnaean Society of NY)
298 Clinton Ave #3
Brooklyn, NY 11205

Novenber 24, 2003

Shale Brownstein, Conservation Chair
Linnaean Society of New York
15 W 77 Street
New York, N.Y. 10024

John Forren
U.S. E.P.A. (3EA30)
1650 Arch Street
Philadelphia , P. 19103

re:mountain top mining/ valley fill DEIS

Dear Mr. Forren:

The Linnaean Society, a group of interested naturalists with more than 500 active members, hopes for a moratorium on mountain top mining.

The habitat destruction wrought by the proposed mountain top coal mining will destroy thousands of acres of mature hardwood forest in Ohio, Pennsylvania, Virginia, and Tennessee. There will certainly be immense damage to the Cerulean Warbler population. 8-2-2

Awesome scenes of mountain top removal involve more than the disappearance of the headwaters of mountain streams and the filling in of an adjacent valley. Many species are severely disrupted and the ecological damages will of necessity extend to a considerable distance from the mining operations. 9-2-2

This Appalachian region of the eastern United States will suffer ugly pockets of noise, dust, and disfigurement. The extensive losses already suffered will be greatly extended in ways that will even more permanently alter the land. We think that the current draft environmental impact statement has failed properly to assess the impact of the future changes, which are already being actively implemented. The mining of the immense area in this fashion is going forward without sustained serious consideration of the social and ecological losses that follow in the wake of this one time removal of available coal. 9-4-2

We plead for a moratorium.

We hope that reflection will give time for us all to study the conflicting claims of residents, visitors, and environmentalist's about the future of these irreplaceable mature hardwood forests. 1-9

Only the imposition of a moratorium on the mining can offer the chance to modify seriously the proposed coal extraction, which will change everything forever.

Sincerely

Shale Brownstein, Linnaean Society of N.Y.
and
Suzan Frecon
concerned citizen actually horrified that such destructive and desecrating acts against our land are allowed !!

13 Pinyon Pine Road
Littleton, CO 80127

REC'D JAN 2 2 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren,

I do not support Alternative 1, 2, or 3 as described in the draft EIS report. None of these options will protect Appalachian forests, water, or communities. In particular, I oppose the proposal to eliminate the stream buffer-zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-5 1-10

Leveling mountains and burying streams is wrong and must stop.

Sincerely,

The Fredrickson Family

RMF <rmfrith@comcast.net> 01/02/04 06:59 PM

To: John Forren/R3/USEPA/US@EPA
cc:
Subject: mountain top removal mining

Dear Mr. Forren,
I am concerned to learn that there are proposed changes by the Bush Administration to relax or do away with the rule that mining impacts must not come within 100 feet of streams. Mining companies must be held
accountable for the environmental damage that they do- we should not be making it easier for them to destroy and pollute. Please keep the stricter standard in place. Thank you for your attention. 1-10

Rachel Frith
4768 Millhaven SE
Kentwood MI, 49548

Forwarded by David Rider/R3/USEPA/US on 12/18/2003 05:21 PM -----

greenwolf@neto.com
12/12/2003 12:09 PM

To: R3 Mountaintop@EPA
cc:
Subject: Comments on Draft programmatic Environmental Impact Statement on mountaintop removal coal mining

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am writing to urge the Bush administration to protect our mountains and streams from mountaintop removal coal mining. I am outraged that the draft Environmental Impact Statement (EIS) on mountaintop removal proposes no limits on this destructive practice, even though the study clearly concludes that the environmental effects of mountaintop removal are devastating and permanent.

I understand that the draft EIS concludes that more than 1,200 miles of streams have been damaged or destroyed by mountaintop removal. It also concludes that 1.4 million acres of forests could be impacted, along with as many as 244 species of wildlife. Finally, it says that without additional limits, another 350 square miles of mountains, streams and forests will be destroyed by mountaintop removal. 1-5

In light of these clear facts, I am shocked that the draft EIS states that the Bush administration's preferred alternative is to WEAKEN existing environmental protections. It would allow mountaintop removal and associated valley fills to accelerate by proposing to streamline the permitting process. And it proposes to roll back an important surface mining rule that prevents coal companies from disturbing areas within 100 feet of streams. This "preferred alternative" ignores your own studies detailing the devastation caused by mountaintop removal coal mining! 1-10

I urge the Bush administration to consider alternatives that reduce the environmental impacts of mountaintop removal, and to implement those measures needed to protect the environment and communities of Appalachia. In particular, I urge the administration to consider restrictions on the size of valley fills to reduce stream and forest loss. These alternatives must be evaluated for individual projects as well as regionally so that the cumulative impact of the destruction caused by mountaintop removal is addressed. 1-8 9-2-2 9-2-2

Sincerely,

don gaines
rt # 1 box 65
annona, Texas 75550

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"pash@commspeed.net" <pash To: R3 Mountaintop@EPA
cc:
01/06/2004 01:00 PM Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Please change the EPA's draft environmental impact statement to limit the effects of mountaintop removal mining. It is NOT OK to allow coal companies to destroy mountaintops, forests, streams and communities. Alternatives can and must be found. It is wrong to support the profits of coal companies without first considering the health of people and environment. 1-9

Sincerely,

Pash Galbavy
400 Loy Lane
Sedona, AZ 86336-9187
pash@commspeed.net

REC'D AUG 22 2003

P.O. Box 255
White Sulphur Springs
WV 24986
August 15 2003

Mr. John Forren USEPA
1650 Arch Street
Philadelphia Pa 19103

Dear Mr. Forren,
Mountaintop removal is not good for our fair state. We depend on you to protect our environment and make sure our land is used as nature intended it to be used. 1-9

Thank you,
Francis J. Gallagher

REC'D AUG 2 6 2003

Sr. Marie Gangwish
2000 Saint Anne Dr.
Melbourne, KY 41059-9602

August 21, 2003

Dear Mr. Forren,

My comments about the Environmental Impact Statement on Mountaintop removal and valley fills are:

1. I am very much opposed to Mt-top removal and to valley fills. This just weakens the laws that protect clean water 1-9

2. I oppose the proposal to change the stream buffer zone that prohibits mining within 100 feet of streams. 1-10

3. I oppose the EIS report because it ignores the scientific report about the harmful effects of leveling the mountains and burying our streams. 1-5

4. I do not support the Alternatives #1, 2, or 3 contained in the EIS report because they do not protect our water or our communities.

I do hope some commonsense will be used before more damage is done to our mountains and streams.

Sincerely,
Sister Marie Gangwish

MOUNTAINTOP MINING EIS COMMENTS

Submitted by:

J. Steven Gardner, P.E., P.S.
Engineering Consulting Services, Inc.
340 South Broadway, Suite 200
Lexington, KY 40508
859-233-2103

The debate over the legality of Mountaintop Mining (MTM) has now raged for many years and some have attempted to turn it into a morality play. Issues of morality are present in many aspects of our lives and not surprising people disagree on what is moral and what is not. Many good people disagree on several fundamental issues from what is marriage or relationships between two people to what is a just cause to go to war. Emotional pleas to ban MTM have been made. Just because someone says something is true does not make it so. This is a technical issue and engineering and scientific facts should prevail.

MTM SPECIFICALLY ALLOWED UNDER SMCRA

MTM is a mining method that the United States government is largely responsible for creating. I happened to have been starting my tenure in the engineering community when the Surface Mining Control and Reclamation Act of 1977 (SMCRA) was passed under President Carter. This act contemplated and specifically allowed and encouraged MTM. R&D under the Carter Administration's DOE, EPA and BOM helped develop and refine MTM. I know because I helped work on several projects funded by those agencies.

LONGSTANDING AND ACCEPTED PRACTICES ARE SUDDENLY DECLARED ILLEGAL 12-1-1

The mining industry has been operating for almost 30 years with the understanding that these practices were legal and even encouraged by the government. Full resource recovery and higher land utilization is one of the goals of SMCRA. Many in industry also felt that SMCRA was designed to provide a coordinated approach to permitting sites that crossed agency and regulatory program lines to avoid just the types of problems that have now occurred: i.e. a continual reinterpretation of regulations and insertion of personal beliefs.

MTM IS TRULY A FORM OF SUSTAINABLE DEVELOPMENT

MTM areas provide one of the keys to the economic future of Appalachia. One point being missed in the public debate is APPALACHIAN LANDOWNERS WANT MOUNTAINTOP MINING! Landowners must approve any plan for MTM or it cannot take place. Developments have been created and landformed all over Central Appalachia including hospitals, schools, golf courses, airports, industrial parks, prison sites, 10-3-2

residential and commercial developments, farms, recreation and wildlife areas, all of this in a region where level land is scarce. MTM is bringing many things to Appalachia that other regions take for granted. Some people see these sites today and do not know they resulted from mining. Wildlife is now more abundant than it was 30 years ago. Mining has actually helped create wildlife habitats and the resurgence of wildlife populations. 10-3-2

ROCK AND DIRT ARE NOT NECESSARILY WASTE IN THE EPA CLASSIC SENSE

Much has been made of the controversy over filling streams. Mining can be compared to road construction. Material placed in hollow or valley fills has been called waste; a term adopted by engineers over the years, but not waste in the connotation presented. It is simply excess rock and dirt placed in engineered and managed fills. Streams are not lost forever. The water is still there, however new flow paths are created. The vast majority of these areas are in the upper reaches of a hollow where typically there is no water flow, comparable to drainage ditches or curbs that control the flow of water in cities. 5-7-2

SUMMARY AND CONCLUSION

The recent EPA EIS on MTM found that only 6.8% of Appalachia has or even can be mined by MTM methods, so I hardly think Appalachia is being "decapitated" as many editorialists claim. Rather MTM as I have seen it can be described as creating "plateaus" of useable land where there was none. As an Environmental Practioner, I strongly support Alternative III, as outlined in the EIS as the preferable approach. I feel that "MOUNTAINTOP MINING IS A VALUE ADDED PROCESS". 1-4

J. Steven Gardner, P.E., P.S.
Engineering Consulting Services, Inc.
340 South Broadway, Suite 200
Lexington, KY 40508
859-233-2103
sgardner@engrservices.com

J. STEVEN GARDNER, P.E., P.S.

Mr. Gardner is President/CEO of Engineering Consulting Services, Inc. headquartered in Lexington, Kentucky. He holds graduate and undergraduate degrees from the University of Kentucky in Mining Engineering and Agricultural Engineering, respectively, plus a graduate level Environmental Systems Certificate. He is a licensed Professional Engineer in Kentucky, West Virginia, Virginia, and Tennessee, and a Licensed Professional Surveyor in West Virginia. His twenty-eight years of experience includes Bethlehem Steel mining operations in Kentucky and U.S. Coal Co. in Tennessee. He has worked as an engineer and manager in both mining operations and consulting engineering, as well as having served on a mine rescue team. His consulting practice focuses on mining and quarry operations, due diligence studies, sensitive land use issues, reclamation liability, environmental, health and safety issues, and industrial heritage projects. He was a co-editor and contributor to the "Coal Mining Reference Book" published in 1997, served as a reviewer of the National Research Council's publication, "Coal Waste Impoundments; Risks, Responses, and Alternatives" and is a continuing contributor to www.coaleducation.org. Mr. Gardner is active in the Society of Mining, Metallurgy and Exploration (SME) and just completed a three year term as Vice President of the Southeast Region, member of the Board of Directors and Executive Committee for the 12,000 + member organization. He was the 2003 recipient of the SME Government, Education and Mining (GEM) Award given in recognition of "...enthusiastic support of GEM activities and for educating the public by partnering with school districts and university systems to provide more information about the mining industry." He was recently appointed to the Kentucky State Board of Licensure for Professional Engineers and Land Surveyors by the Governor.

----- Forwarded by David Rider/R3/USEPA/US on 01/09/2004 03:54 PM -----

Dawn Garten
<dawn@wmbinc.com> To: R3 Mountaintop@EPA
cc:
01/06/2004 01:47 PM Subject: Comments on draft EIS on mountaintop removal mining

January 6, 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear John Forren,

I am a citizen of Kentucky, born and raised here. I have grown up with the effects of coal mining a harsh reality in my life. It is not fair that my people and the quality of our lives are sacrificed for the production of electricity. I whole heartedly agree with the draft statement below these, my own words. However, I wanted to add my own words so that you can put a human being with this request. Before you undo the protections that have been provided for our land and people, I urge to visit Eastern Kentucky, particularly Chavies in Perry County, where I am from. It is a beautiful place. You need to drive in so that you can see the beauty, and fly out so you can see the devastation. Visit with my grandmother, but be sure to wipe the seat clean before you sit, as the layer of coal dust on the chairs will stain your clothing. And as you wipe that out and you look into the eyes of an old woman who has worked hard to be a good mother and wife all her life, consider that the filth you prevent from getting on the seat of your pants coats her lungs and took the life of her husband and killed her first born son. And then try to put the good of coal against the bad. It is clear that your administration feels that sacrificing American lives for a 'greater good' is a necessary evil; we are, after all, at war. But defense from weapons of mass destruction and sacrificing lives for the production of electricity, they cannot be compared and to do so is an insult to the lives of the Kentucky men and women who have lost their lives in the present and past wars; people who were fighting for the rights of their families, only to have those rights set aside for the plundering of their land and their lives. 10-4-2

I am upset to learn that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. 1-9

According to the administration's draft Environmental Impact Statement(EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations. 1-5

The Bush administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal mining is to weaken existing environmental protections. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including: 1-10

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal;

- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species;

- Without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining.

In light of these facts, I urge you to consider alternatives that reduce the environmental impacts of mountaintop removal. Thank you for your consideration of this important issue.

Sincerely,

Dawn Garten
3300 Tahoe Rd
Lexington, KY 40515
USA

Niall Gartlan

----- Forwarded by David Rider/R3/USEPA/US on 01/30/2004 11:21 AM -----

Comcast Mail
<gartlan@comcast.net>
To: R3 Mountaintop@EPA
cc:
Subject: Please oppose mountain-top removal mining and valley fills!
01/12/2004 11:50 PM

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

I am completely opposed to mountaintop-removal mining and valley fills. The massive damage wrought upon people and the landscape as a result are unacceptable. These practices bury important headwater streams, destroy biologically rich forest ecosystems, damage drinking-water sources used by millions of people, cause frequent and severe flooding, and wreck the quality of life in Appalachian communities. Leveling mountains and burying streams is wrong and must stop. 1-9

I welcome scientific studies that document the widespread and irreversible damage the coal industry is doing to Appalachia. Yet this EIS rejects—without meaningful consideration—specific restrictions on the use of valley fills. These restrictions could be based on size of the fill, cumulative impacts, types of streams affected, or value of the aquatic resources in the region. 1-7

I am opposed to any changes that would weaken the laws and regulations that protect clean water. In particular, I oppose the proposal to eliminate the stream buffer-zone rule that prohibits mining activity within 100 feet of streams. [Alternatives 1 and 3 would eliminate the rule, while Alternative 3 would "clarify" it by saying that it does not apply to valley fills.] This rule should be strictly enforced for valley fills and in all other cases. 1-10

I do not support Alternative 1, 2, or 3 as described in the EIS report. None of these options will protect Appalachian forests, water, or communities. 1-5

Thank you,
Niall Gartlan

Lydia Garvey

12.18.03

Lydia Garvey
429 S 24th St
Clinton OK 73601-3713

Dear Mr. Forren,

Boo! to the extremely inadequate Draft EIS on mountaintop removal — that continues the extreme environmental destruction! Are our wildplace & waterways paramount to trash to treat so? I'm abhorred by such desecration & failure of the EPA to protect the environment. Do your job! — I strongly urge the EPA to strengthen — not weaken environmental protection. Go renewable, sustainable. Americans want clean water, clean air & wildplaces! Nature is sacred — she supports us — with her we'd be nothing. The price for short-term profit is much too high. 4-2

Your attention to this most urgent matter would be much appreciated by all future generations of all species. 1-10

Sincerely,
Lydia

REC'D DEC 22 2003

Box 215
Mabscott, WV
25871

REC'D OCT 15 2003

Oct. 9, 2003

Mr. John Forren, US EPA
1650 Arch St.
Philadelphia. PA 19130

Regarding the EIS on mountaintop removal:
I grew up on a dairy farm in Eastern Ohio. We had strip mines all around us; they left behind highwalls, deep ponds where almost nothing lived, orange water in the creeks, and a land that would barely grow pokeberries, let alone trees.
When I moved to Whitesville, WV in 1976, I thought, "they know how to mine coal here." The mines were deep in the mountain, the creeks and rivers below them didn't seem to be polluted, and whole communities were based on those mines.
After living away from WV for 20 years and then coming back in 1999, I realized that strip mining had come back, with bigger everything. I couldn't believe the Coal River Valley. It was gone. The places I used to hike and canoe are now either flood-ravaged or filled with rock and rubble. I visited Larry Gibson's place on what is left of Kayford Mountain. Even his dead relatives aren't safe there, the flyrock bouncing off the headstones and the graves sinking from the mountain being cut away from the cemetery. 1-9

I have followed closely the attempts by WV Highlands and Ohio Valley Environmental Coalition and others to slow this destruction, and the attempts by the coal companies and all their business and political cronies to speed it up. So regarding this document, which ideally would itemize mtr's effects and provide alternatives, it smells badly.

I disagree with all 3 alternatives provided by this statement. They are not alternatives at all, to anyone who loves the land. 1-5

I am offended that this proposes to do away with the provision for no mining within 100 feet of streams. 1-8

I propose another alternative; embrace the spirit of the clean water act and decide that if coal cannot be mined economically by underground mining, leave it in the ground.

Yours Truly,
Glenn Gaskill

1-19-04

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 23 2004

Dear Mr. Forren,

I am writing to express my concern about the recommendations of the Environmental Impact Study (EIS) on mountaintop removal and valley fills. With the documented harm that mountaintop removal has caused water, wildlife, forests, and communities in Kentucky and the Central Appalachian region, I find it appalling that the EIS recommends weakening environmental protections. Removal of the buffer zone that protects streams from the impacts of coal mining is a step backward; furthermore, none of the possible alternatives identified in the EIS offer any options that will prevent the devastation caused by mountain top removal. 1-9 1-10 1-5

I am opposed to any weakening of environmental protections. I am opposed to the recommendations of this study, which ignore the scientific evidence of the destruction caused by mountaintop removal. I hope that the U.S. government and EPA will take the necessary steps to prevent this destruction and to protect nature, wildlife, and people. 1-10

Suzanne Gayetsky
353A Woodland Ave.
Lexington, KY 40508

REC'D JUL 2 4 20

7-17-03

7/17/03

John Forren
US EPA (3ES30)
1650 Arch Street
Philadelphia, Pa. 19103

In your Environmental Impact Statement & Forest Management Plan, please include strategy to STOP MOUNTAIN TOP REMOVAL , valley fills, logging, burning/mining/mowing, herbicides and recreational vehicles plus heavy equipment use in our forests! These practices, AKA environmental terrorism, are an attack on each one of us as well as on our precious home, mother earth. Mother nature is not just a spendable resource. It's the centering force in our web of vital life forces. There is no earthly reason to control the awesome forces of the natural world to live together wisely on this earth at peace with ourselves. 1-8

Very truly yours,
Mary Gee

Ms.Mary Gee
565 Cane Run
Lexington, Ky. 40505

December 15, 2003

REC'D DEC 1 8 2003

Mr. John Forren EPA
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. John Forren EPA,

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fillsshould not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-9 1-10

I am a native of West Virginia and still have relatives whom I visit often. I am proud of my hertiage and I love my native state. I am sickened by this display of corporate greed and total disregard for human life and our need for clean water.

YOU MUST not allow this destruction to continue because there is ample evidence that the practice of filling valleys and streams with waste is damaging to the enviroment and the communities of Appalachia. Please do not weaken the laws that are meant to protect Appalacians but please enforce regulations and hold mining companies accountable for their actions.

All humans need clean water please do not change the stream buffer zone rule. ~~Our streams need~~ our protection.

Please help do the right thing for our children's future. I urge you to reject this proposed rule change and do all in your power to protect the Appalachian mountains.

Sincerely,
Melissa Gee

Melissa Gee
111 View Dr
Boone, NC 28607-7951

Please help!

REC'D JAN 2 0 2004

Stop mountain top removal. Forever. It hurts Mother Nature and all living beings. Ban Mountaintop removal. Forever. 1-9

14404 Ms. Gee, 565 Cane Run, Lex, Ky. 40505

Dan Geiger <dgeiger@jrcsc.net> To: R3 Mountaintop@EPA
cc: "Wilson, Jeff" <jawilson@jamesrivercoal.net>, "Caylor, Bill" <bcaylor@miningusa.com>
08/14/03 04:10 PM Subject: Draft EIS on moutaintop coal mining and associated valley fills in Appalchia

John Forren
U.S. EPA
1650 Arch Street
Philadelphia, PA 19403

Dear Mr. Forren:

Please accept these comments concerning the draft mountaintop EIS and include them as part of the public comment record.

I am Vice President, Engineering at James River Coal Service Company, a subsidiary of James River Coal Company (JRCC). JRCC operates underground coal mines in six East Kentucky Counties and employs some 1000 people. 11-1-2

The valley fill controversy has been characterized as effecting mainly mountaintop removal surface mining. It has even been said that ceasing mountaintop mining would be no loss because the coal and employment could be replaced by underground mining. This is simply not true.

Underground mines depend on valley fills just as much as surface mines. Deep mined coal is mixed with extraneous material, mainly sandstone, shale, and clay. This raw coal is too high in ash and too low in heat value to be sold to electric utilities and must be processed to remove the impurities.

The resulting rock and coal/clay fines must be disposed of in a safe, permanent, economical location. Due to the mountain/valley topography of Appalachia, the only practical place to store this material is at the heads of valleys in refuse piles and coal slurry impoundments. 13-3-5

It has been suggested that this material could be used to backfill old high walls or placed on reclaimed mountain top mines. While this might

be practical occasionally, usually it is not. Coal preparation plants are generally built in valleys while surface mines are usually a considerable distance away, both horizontally and vertically.

Most alternate schemes can be made to work if cost is not an issue. If deep mines have no practical method of waste disposal, they will be uncompetitive in the market place and cease to exist. Deep mines need valley fills. 13-3-5

Dan Geiger. P.E.
Vice President, Engineering
James Rive Coal Service Company
1374 Hwy 192 E.
London, KY 40741-3123

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:39 AM -----

"Andy J. Gelston" <ajg@ConceptsNrec .com> To: R3 Mountaintop@EPA
cc:
Subject: Please amend the draft EIS on mountaintop removal coal mining
01/05/2004 01:36 PM

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103
Email: mountaintop.r3@epa.gov
Dear Mr. Forren,

Please consider amending the EPA's draft environmental impact statement to limit the environmental impact of mountaintop removal mining. I was surprised to learn that the Bush administration plans to relax existing limits.

The draft EIS posits that the environmental effects of mountaintop removal are widespread, devastating and permanent, so the draft EIS should contain restrictions on the size of valley fills, limits on the number of acres of forest removed, protections for wildlife habitat, and comprehensive planning for the local communities that depend on the region's natural resources. With the modern underground coal mining technologies available today, I see no reason why the Bush administration proposes weakening existing environmental protections and allowing mountaintop removal and associated valley fills to be accelerated. 1-10

The Bush administration would better represent the public's interest by implementing alternatives that reduce the environmental impacts of mountaintop removal and protect unmined natural resources and communities in Appalachia. Please amend the draft EIS in accordance with the E and P of your agency's anagram. 1-5
Best regards,

Andy Gelston<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />
Contract Specialist
CONCEPTS NREC

Corporate Headquarters
217 Billings Farm Road
White River Junction, VT, USA 05001-9486
TEL: (802) 296-2321 ext. 226 FAX: (802) 296-2325
E-mail: ajg@conceptsnrec.com

visit us at: www.conceptsnrec.com

This email message and any attachments are for the sole use of the intended recipients and may contain proprietary and/or confidential information which may be privileged or otherwise protected from disclosure. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipients, please contact the sender by reply email and destroy the original message and any copies of the message as well as any attachments to the original message.

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"mikeg@iit.edu"
<mikeg To: R3 Mountaintop@EPA
cc:
01/06/2004 05:21 Subject: Please Stop Destructive Mountaintop Removal Mining
PM

Dear Mr. John Forren, Project Manager,

Mr. Bush:

As a supported in some respect and not in others I am pleased and dishearted by your decisions over the past several years. Please do not allow this type of coal mining to take place. I have removed the rest of this automated letter because I'm sure you got several million to date. Thank you for your time if anyone read this. :) 1-9

Sincerely,

Mike George
13802 S. Pflumm Apt 207
Olathe, KS 66062
mikeg@iit.edu

January 19, 2004

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 23 2004

Dear Mr. Forren,

I oppose mountaintop removal and valley fills and any change in the buffer zone rule. I am disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. 1-9

The EIS report was intended to outline options that would "contribute to reducing the adverse environmental impacts of mountaintop removal operations and excess spoil valley fills in Appalachia." The report documents the extensive environmental damage caused by mountaintop removal and valley fills, and yet the Bush administration used the EIS process to propose rule changes that make it easier for coal companies to get permits for mountaintop removal and to eliminate protections for streams. The recommendations contained in the EIS report are a shame and a failure to the American people. They will not protect our stream and forest ecosystems, and they will not protect our communities. 1-10

In fact, the recommendations have no relation to the problems caused by mountaintop removal mining and valley fills as documented in the studies.

I am angry that the EIS report rejects, without meaningful consideration, specific restrictions on the use of valley fills. There is abundant scientific evidence and a very strong legal case for taking a position that levelling mountains and burying streams is wrong and must stop. 1-7

I am opposed to any changes that would weaken the laws and regulations that protect clean water. In particular, I am opposed to the proposal to change the stream buffer zone rule that prohibits any mining activity that is within one hundred feet of streams. 1-10

I welcome the scientific studies that document the widespread and irreversible damage that the coal industry is doing to my home state of Kentucky. I do not support any of the three "alternatives" contained within the EIS report. None of these options will protect our water or our communities. This report is a shameful, dangerous gift from George Bush to the coal industry. It ignores the science and evidence about what mountaintop removal mining is 1-5

doing and ignores the public's demand for clean water, a healthy environment, and safe communities.

I appreciate your consideration of this issue, and I hope that you will do what is right for your fellow citizens.

Sincerely,
Meagan Gibson

Meagan Gibson
264 Lyndhurst Pl, Apt. 3
Lexington, KY 40508

REC'D JAN 0 2 2004

12 31 03

Mr. John Fourn - US EPA (3EA30)
I opposed to mountaintop removal valley fill
It's impossible and can't be environmentally safe. I-9

Larry L. Glen
Dawes WV 25054
1-304-542-1134

REC'D DEC 2 9 2003

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

December 20, 2003

Subject: Please Stop Destructive Stip-Mining

Dear Mr. Forren,

I recently read an article about the horrible conditions both for the people and the environment that are being created in the Appalachian mountains through the practice of strip-mining. Streams are being heavily polluted or even buried. Surrounding forests are destroyed. The health of the people in the region is declining as well. The ever-present dust in the air in some areas causes people to develop asthma or other lung problems. 1-9

Strip-mining may be a major source of income, but what is being lost in the process? American citizens in this area are suffering to send coal and the majority of profits out of their community. Irreparable environmental damage is being done as well.

Please, I ask that you do what is right and protect the people and environment of Appalachia. I do not support Alternative 1, 2, or 3 as described in the draft EIS report. 1-5 None of these options will protect Appalachian forests, water, or communities. In particular, I oppose the proposal to eliminate the stream buffer-zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-10

Leveling mountains and burying streams is wrong and must stop. Please act for the people and the land.

Sincerely,

Christopher Goddard

Christopher Goddard
18012201 Rawlings Hall
Gainesville, FL 32612

3815 Brookview Road
Austin, TX 78722-1323
January 19, 2004

Mr. John Forren
Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Mail Code 3213A
Washington, DC 20460

REC'D FEB 0 5 20

Dear Mr. Forren:

I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be enforced for valley fills. 1-10

I cannot imagine why the federal government is proposing to continue allowing coal companies to destroy a functional, beautiful part of our country by blowing up mountaintops and forests, and dumping that land in the rivers below.

The laws and regulations that protect America's land and clean water must not be weakened, as this practice does—they should be strengthened.

Last summer, my husband and I went on a car and camping vacation through West Virginia. Mountaintop removal will ruin the health and beauty of the land and water of that state plus others. This in turn will hurt the state's economy. 1-9

I strongly oppose this terrible practice and the further proposed rule change to remove whole pieces of mountains and ruin the forests, rivers, and valleys. This benefits only a few people—the principals of mining companies.

Surely compassionate conservatism doesn't include this! I want my tax dollars spent on protecting America's wonderful natural land, wildlife, water, and air resources.

I urge you to oppose the mountaintop/dumping practice.

Sincerely,

Gay Goforth

Gay Goforth

----- Forwarded by David Rider/R3/USEPA/US on 08/21/03 11:08 AM -----

CGoodwoman@aol.com
08/14/03 03:40 PM

To: R3 Mountaintop@EPA
cc:
Subject: Mountain top removal comments

PLEASE STOP MOUNTAIN TOP REMOVAL. 1-9
Crystal Good
8 Arlington Ct
Charleston WV 25301

DEC 18 2003 Dec. 11, '03
RECD

Dear Mr. Fowler,

I am opposed to mountaintop removal mining and the Bush Administration's plans to ease restrictions on mountaintop removal permits. 1-9

Please urge the EPA to reject President Bush's proposed rule changes... and let's put an end to mountain top removal for good. 1-10

I thank you. 1-9

Sincerely yours,
Donny R. Good

Mrs. Joanne H. Granzow
545 Garden Rd.
Dayton, OH 45419-3504

JOANNE GRANZOW

Jan 12, 2004

Mr. John Forren
U.S EPA
1650 Arch Street
Philadelphia, PA

REC'D JAN 20 2004

Dear Mr. Forren,

I am writing to express the opinion that blasting the tops off our mountains and the resulting destruction to the land and watersheds, in order to mine coal, is an unconscionable act!

Diminishing the existing law (policy) compounds the problem.

Additionally, we should be seeking alternative fuels, rather than polluting fossil fuels.

Where are our ethics? Joanne Granzow

1-9

1-10

REC'D AUG 2 8 2005

Lexington Herald Leader
I was appalled to read that the environmental agency is now considering mountain top removal (strip mining) for coal.
Our country is coming apart at the seams now. Why add insult to injury!
Do those in power realize what the consequences are, not only now but also for years to come to our mountains and the folks that live in those areas.
Homes are destroyed by mud slides and flooding time after time. Nature took care of the problems of erosion and disasters until the strip mining was done several years ago. It is taking years to recover and repair what was lost then.
It will not help the economy for the ones that need the help but only line the pockets of the big corporations.
Our roads, railroads, education and energy are being neglected, as is everything else in our own country. We know where the funds are going but isn't it time we took care of our own?
I am disappointed in our representatives for not making our state a priory and put party lines on the back burner for just a little while. Kentucky people have elected them and their loyalties should be to them.
We citizens must open our eyes and see the havoc that is upon us. Our country we once knew is slipping away!
We are Americans.
We have shown strength before.
Let us speak out and get involved!
Katherine M. Green

1-10

Copy to:
John Forren
U.S. EPA (3E530)
1650 Arch Street
Philadelphia, Pa.19103

Rep. Ernest Fletcher
U.S. House of Representatives
Washington, DC 20515

Pres. George Bush
The White House
1600 Pennsylvania Ave.
Washington, DC 20500

1/16/04

John Forren
U.S. EPA (3ES30)
1650 Arch St.
Philadelphia, PA 19103

REC'D JAN 2 2 2004

Dear Mr. Forren:

I oppose mountaintop removal and valley fill and any change in the buffer zone rule. I'm disappointed and angry that the federal government ignored its own studies when it proposes weakening, rather than strengthening, protections for people and the environment. 1-9 1-10

I live close to the mountains of East Tennessee and count my blessings every day. I have witnessed the tragic upheaval of communities that have been disrupted, damaged and/or destroyed by strip mining. 10-2-2

Thank you for your consideration,

Margaret

Margaret M. Gregg
203 Gravel Hill Rd.
Limestone TN 37681 423 257 3875
mgregg@ecoisp.com

cc: President G.W. Bush

REC'D SEP 0 8 2003

Robert Gipe
P.O. Box 1394
Harlan, KY 40831

John Forren, US EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I live in Harlan County, Kentucky at the headwaters of the Cumberland River. We have had nearly a hundred years of coal mining in our community. We have very little clean water. We once had plenty.

The draft environmental impact statement on mountaintop removal published recently by the Bush administration is a slap in the face of everyone who needs water to survive. It is a malicious, poisonous, shortsighted, misanthropic, hateful, greedy, anti-democratic document.

I pray that the people who put it before the public will live long enough to see the errors of their ways and correct them. I pray that the people who wrote this document never have to drink the greasy black water that comes out of the spigots of people in the American coalfields. I pray that they never have to pull their sleeping children out of a home flooded as a result of rain on poorly reclaimed strip jobs.

My message to President Bush and all the formulators and enforcers of his self-serving, callous, cynical, dangerous energy policy is this: I support none of the proposed alternatives in your environmental impact statement. I oppose Mountaintop Removal Mining. Enforce SMCRA the way it was written. Enforce the Clean Water Act the way it was written. 1-5 1-9

Good people don't have to get sick and die just so this country can have electricity. We can do better. Pursue alternatives.

Elected officials are supposed to look out for the interests of all the people--not just their fraternity brothers, family friends, and corporate cronies. Quit acting like gangsters and start acting like statesmen. Or pursue another line of work.

Sincerely,

Robert Gipe

Robert Gipe

Karen Grubb
<kgrubb@mail.fscwv.edu>
08/20/03 12:12 PM

To: R3 Mountaintop@EPA
cc:
Subject: Mining EIS

Mr. John Forren, US EPA
1650 Arch Street
Philadelphia, PA 19130

Mr. Forren,

Mountaintop Removal destroys streams, contaminates drinking water, causes
flooding, makes moonscapes out of the beautiful Appalachian Mountains -- some of the world's oldest mountains, causes blasting damage to residents
homes, air pollution to residents, destroys hardwood forests and wildlife
habitats, destroys Appalachian culture and heritage, defies the executive
order regarding environmental justice for low income people, destroys jobs
and is environmentally insane.

Mountaintop Removal should be stopped now! The recommendations in the EIS
Statement are a sham in that they ignore the scientific evidence and recommend
speeding up the process in permitting mountain top removal. No economic gain can justify the process of mountaintop removal.

1-9

Karen Grubb
21 Beverly Circle
Fairmont, WV 26554

Robert Hallick
Date: 1/02/2004
City: West Reading State: PA Zip: 19611

I am happy to learn that the Bush administration plans to continue to let coal companies change Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and help communities. It is important to do mining for resources, as long as the replanting of trees is in effect the mining could very well help the beautification of our countries mountains. In light of these facts, I urge you to consider alternatives that increase the environmental impacts of mountaintop removal. Thank you for your consideration of this important issue.

1-11

REC'D JAN 0 7 2004

January 3, 2004

Mr John Forren,
US Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Dear Mr Forren,
I received an email from an organization Save Our Environment yesterday that has truly upset me. The message sent me described the intention of the Bush administration to continue to allow coal companies to destroy the beauty of Appalachia with mining practices that level mountaintops, clearcut forests [destroying trees AND wildlife habitat], bury precious irreplaceable streams, and destroys communities.

According to the administration's proposed draft environmental impact statement [EIS] on mountain removal coal mining the environmental effects of mountaintop removal are widespread, devastating, and permanent. 1-9

PLEASE be exceedingly careful in the decisions made regarding our precious natural environment. All life should be held sacred. We are damaging beyond repair the earth upon which we depend for our existence.

PLEASE do not allow the Bush administration to weaken existing environmental protections in order to benefit corporate interests. 1-10

I ASK YOU NOT TO MAKE IT EASIER FOR COAL MINING CORPORATIONS TO OBTAIN PERMITS TO ALLOW THIS FORM OF MOUNTAINTOP REMOVAL COAL MINING.

According to the administration's own studies over 1200 miles of streams have already been damaged or destroyed by mountaintop removal..the loss of forest in West Virginia will directly impact wildlife habitat for as many as 244 wildlife species..an d without limits placed upon mining interests an additional 350 sq miles of PRECIOUS mountains, streams and forests will be permanently altered or destroyed IF ALLOWED by your agency. In addition to the ecological devastation being done please take into SERIOUS consideration that generations-old communites of coalfield residents have already been forced from their homes by these destructive mining practices. Please do not sacrifice the land and the people [as well as their children and grandchildren] who have lived on the land simply for the benefit of mining interests. 1-9

The earth, and generations to come will be affected by your decisions regarding this matter. Please consider alternatives that will lessen the environmental impacts of mountaintop removal. Thank you for your serious consideration of this very important matter. In sincerity,

Emilie Hamilton
Emilie Hamilton
PO Box 52/11 Putney Rd.
Leverett, MA 01054
413-548-9328

John Forren
US Environmental Protection Agency
1650 Arch St.
Philadelphia, PA 19103

REC'D NOV 17 2003

November 8, 2003

Dear Mr. Forren,

I am writing to request that you do what you can to keep Mountain Top Removal (MTR) regulations in place — especially SMCRA regulation 30 CFR 816.57 that prohibits mining activity within 100 feet of a stream. Even this regulation is too lenient and allows too much destruction. Please restrict the size of valley fills and require companies using MTR methods to strictly follow the Clean Water Act. No loopholes should be created for MTR. Hundreds of miles of Appalachian streams and forests have been buried in rubble by MTR. Companies say that the streams can trickle out from under the "toe" of the valley fill (i.e. giant rubble pile). They also say that many streams are not large enough to worry about. Entire ecosystems depend on those streams. Even if the water does trickle out, the stream's temperature and flow are irrevocably changed. This leaves economically and culturally important fish (such as trout) to die. This summer, I worked as an Office of Surface Mining intern for a local watershed group and I saw first hand the damage that poorly regulated mining causes. My [redacted] State — West Virginia — is paying the price for the rest of the country's so-called prosperity. You do not live in West Virginia so you do not have to live with the blighted landscape or the environmental (and economic) devastation that MTR causes. I do live here. I was born here, it is my home. Please protect it by strictly regulating MTR.

1-10

Thank you.

Hann Rich
Rt. 1 Box 33
Independence, WV 26374

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

Karl Hanzel
<karlnrdc@khaos.c om> To: R3 Mountaintop@EPA
cc:
Subject: Strengthen draft EIS on mountaintop removal coal mining
01/05/2004 02:02 PM

January 5, 2004

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

Bush & CO. is an environmental nightmare! Please amend the EPA's EIS so as to limit the effects of disasterous mountaintop removal mining! 1-9

Sincerely,

Karl Hanzel
736 Wagonwheel Gap
Boulder, CO 80302
USA

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 02:01 PM -----

"wpa@swva.net" <wpa
01/06/2004 08:57 PM
To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I am stating my firm opposition to the EPA's draft concerning mountain top mining. I am against this practice and have seen the devastation this process creates. The Bush administration needs to come up with healthy, safe, environmentally safe alternatives to this method. Please look at the obvious horrific examples of destruction this has caused in our country, as well as others. 1-9
I am sending a message of an adamant NO to mountaintop mining.
Thank You.

Alice Hardin
1073 Christiansburg Pike
Floyd, VA 24091
wpa@swva.net

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:52 PM -----

Jerry Hardt <jhardt@foothills .net> 01/05/2004 10:02 AM

To: R3 Mountaintop@EPA
cc:
Subject: EIS statement MTR

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

Given the findings of the EIS released last May and my own observation and experience, I find it absurd that the Bush administration is proposing to ease restrictions on mountaintop removal mining. I encourage EPA and the administration to reject all the alternatives presented in the EIS and move toward a ban on surface mining in steep slope areas and the elimination of valley fills. 1-10

An interim step in this direction would be to simply enforce the law as it now exists.

The preferred alternative represents a total abrogation of the EPA's responsibility to protect the environment and safeguard human health. It is a total sell-out to big-money interests at the expense of the people who live in the Appalachian coalfields. It is a statement that people don't matter and that the administration does not care if the people of eastern Kentucky and West Virginia have any future. 1-5

I encourage you to read your own study. Pay attention to the findings that the environmental effects of mountaintop removal are widespread, devastating, and permanent. Pay attention to the fact that eliminating valley fills would have a minimal economic impact, especially when compared to the massive negative impacts of not banning valley fills. Remember that we are not just talking about dirt and rock, we are talking about peoples' homes and communities.

Don't play with peoples' lives and futures as political favors. Reject the EIS recommendations, strengthen environmental protections and enforce the law.

Jerry Hardt
P.O. Box 697
Salyersville, KY 41465
606-349-2593

---- Forwarded by David Rider/R3/USEPA/US on 01/23/2004 09:38 AM -----

William Hardy <billhardy@yahoo.com> 01/14/2004 05:21 PM

To: R3 Mountaintop@EPA
cc:
Subject: Mountaintop Removal Mining

William Hardy
PO Box 102
Uniontown, WA 99179

January 14, 2004

John Forren
US EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Forren:

I support, as do millions of other americans, any decision this adminstration may come re. this issue. 1-11

Sincerely,

Bill Hardy

REC'D OCT 2 8 2003

Mr. Forren,

I have lived here in the same place for fifty-nine years, and watched the coal industry destroy our mountains with blasting, destroy streams with runoff from mines and preparation plants, destroy our roads with overloaded coal trucks, destroy our homes and lives with flooding caused by broken impoundments, and ruin our health with coal dust. My families water well went dry sixteen years ago because of mountain top removal blasting. I worked in the coal mines here for thirty-one years until I was disabled three years ago and had to retire. I am firmly against mountain top removal coal mining. 1-9

Sincerely,

Roy B. Harless Jr.
HCR 78 Box 5324
Barrett, WV 25208

Roy B. Harless Jr.

Environmental Impact Statement on Mountaintop Removal

Dear Mr. Forren:

My name is Ronda Harper and I live in Huntington, WV. My family's homeplace is in Lincoln County, WV. Our property on the Mud River was once surrounded by beautiful mountain wilderness, but it is quickly becoming a tiny island paradise surrounded by mountaintop destruction. The hollows where my grandmother and grandfather, mother, and uncles once walked, gardened, and hunted are gone. Most of the streams where my
cousins and I waded and swam as children are gone. As I walk along the one last remaining stream on our property I find frogs, turtles, and salamanders. My heart breaks for them for soon they will be buried beneath valley fill. Birds and wildlife are being driven away along with families who can no longer bear the blasting near their homes and breathing the clouds of black dust. Our family is trying desperately to
hold on to our beautiful homeplace, but the coal company is making this VERY difficult. West Virginians who live near MTR sites have been driven out
t, flooded out, and forced to sell out. Mountaintop removal has to stop. 1-9

email
Roncat5@aol.com
org
Ronda Stollings Harper,

DeliveredDate: 01/04/2004 03:55:29 PM

My name is Ronda Harper and I live in Huntingotn, WV. My family's homeplace is in Lincoln County, WV. Our property on the Mud River was once surrounded by beautiful mountain wilderness, but is it quickly becoming a tiny island paradise surrounded by mountaintop destruction. The hollows where my grandmother, grandfather, mother, and uncles once walked, gardened, and hunted are gone. Most of the streams where my cousins and I waded and swam as children are gone. As I walk along the one last remaining stream on our property I find frogs, turtles, and salamanders. My heart breaks for them for soon they will be buried beneath valley fill. Birds and wildlife are being driven away along with families who can no longer bear the blasting near their homes and breathing the clouds of black dust. Our family is trying desperately to hold on to our beautiful homeplace, but the coal company is making this VERY difficult. West Virginians who live near MTR sites have been driven out, flooded out, and forced to sell out. Mountaintop removal has to stop. 1-9

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

Mark Harris <mth1234@yahoo.com> To: R3 Mountaintop@EPA
cc:
Subject: Fix draft EIS to protect streams from mountaintop removal
01/01/2004 07:40 PM

Dear Mr. Forren,

I strongly urge you to add provisions to the EPA's draft EIS that will prevent destruction of streams by mountaintop removal mining.

Although the draft EIS recognizes the problem of valley fills that bury streams, it proposes no restrictions on the size of those valley fills.

Rather than act on your own studies, which recognize the problem of valley fills that bury streams, you are proposing a "preferred alternative" that weakens existing environmental protections and allows valley fills to continue at an accelerated rate. 1-10

I urge you to follow through on the Bush administrations stated commitment to clean water by adopting alternatives that stop destruction of mountain streams by mountaintop removal mining and then implement those measures.

Sincerely,
Mark Harris
PO Box 682375
Park City, UT 84068

Erica Harvey

1/2/04

Dear Mr. Forren,

REC'D JAN 0 5 2004

I wanted to let you know that I am disappointed by the conclusions of the draft programmatic Environmental Impact Statement on mountaintop removal. While the technical studies clearly demonstrated adverse environmental effects, particularly from valley fills, there is no suggestion made for ways to minimize these effects. 1-9

As a chemist, I know that it is MUCH easier to solve problems before they are created. As a taxpayer and power buyer, I would rather pay more money up front for coal mined responsibly than pay the huge amounts it will cost later to remediate enormous, poorly-planned and carelessly-executed valley fills.

Sincerely,
Erica Harvey

Tracy Hasuga

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"roaring20s_99@yahoo.com" <roaring20s_99
01/06/2004 12:18 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

I cannot believe they are going ahead ,in spite of the administrations own studies showing the horrible impact on the envrionment these practices will have! They saying to the American people, we know it's bad, we just don't care'.

Sincerely,

Tracy Hasuga
30 Pitkin St
Burlington, VT 05401
roaring20s_99@yahoo.com

---- Forwarded by David Rider/R3/USEPA/US on 01/06/2004 01:52 PM -----

Marlon <marlon@twcny.rr.com> 12/30/2003 11:13 AM

To: R3 Mountaintop@EPA
cc:
Subject: destructive operations

To Whom it may concern:

I do not envy you in your position, being tugged at from all directions.

Big business have there interest and the lonely citizen has only one voice in a crowd of thousands. I ask you to consider the issues before you concerning the environment and any destruction to it.

You are charged with a huge reconcilability, but keep in mind that what you do affects all man kind, not just in the US but all over the world.

At what point are we the US going to be happy with things, the environment, just the way they are. Are we so starved that we need to destroy virgin land for the sake of a company to make profits. I think not. Look beyond your desk, beyond your self and think about all the people that you will hurt by pressure from the big business that keeps knocking on your door wanting to bend your ear.

Please do not destroy some of the last remaining treasures we have left.

Respectfully

Marlon Henn
311 N. Collingwood Ave.
Syracuse, NY 13206

1-9

20 Jan 04

Mr. Fotozun

I would strongly suggest that you look long & hard at your mountaintop removal plan in the Appalachian mountains. What you do or don't do will affect this region for years & years

Sincerely

Dan Hensley

REC'D JAN 26 2004

D. Hensley
8414 Faust Ave
West Hills, Ca
91304

REC'D JAN 26 2004

REC'D SEP 0 4 2003

Robert M. Hensley, D.V.M.

1025 Creekside Lane Nicholasville, KY 40356

859 271-2920

19 August 2003

Mr. John Forren
1650 Arch St.
Philadelphia, PA 19103

Dear Sir:

I am opposed to the concept and practice of disturbing the mountain top topography to more "efficiently" and "economically" gain access to the coal seams thereunder. This approach to mining may be good for the bottom line of the coal companies, but it most certainly is not for the adjacent environment or its inhabitants.;

Compounding this unconscionable technique is the disruption, if not destruction, of contiguous waterways with the overburden or spoil. This practice flies in the face of existing laws which attempt to preserve, if not improve, the water quality in these areas. The proposed changes would reduce the 100 foot buffer zone which attempts to protect existing streams and would exacerbate conditions of many already degraded by mining activity.

In sum, we must not continue the history of abuse of these areas simply for additional profit. It is time that the quality of life for the inhabitants and their environment be given a higher priority than the profit margins of the corporations causing this destruction.

1-9

Sincerely,

Robert M. Hensley, D.V.M.

cc:KFTC

DeliveredDate: 01/06/2004 05:07:38 PM

I lived and worked in Raleigh and Fayette County, WV, for 21 years until moving to CT in Sept., 2001, and I will never forget the beauty and feeling of the hills of that state. The mountain top removal projects had been going on for quite some time, obviously, and every time there was exposure in the press or by driving by one of the sites there was always a sick feeling in the gut. The extent to which the current Administration is intent on producing profits for their high-placed friends at the expense of the natural beauty and ecologically pristine conditions of those mountains is a travesty beyond words. Coal is useful and necessary, of course. Mine it another way. Period. We can afford it. Stop this wasteful and arrogant process. Now.

1-9

J.Michael Herr

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

cjhice@yahoo.com
01/05/2004 09:46 AM
To: R3 Mountaintop@EPA
cc:
Subject: Don't fill our streams with waste materials

Dear Mr. John Forren EPA,

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. 1-9
Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-10

Sincerely,

Caroline Hice
4353 Main St Fl 2
Philadelphia, PA 19127-1415

1/20/2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

REC'D JAN 2 6 2004

RE: Mountaintop removal

Dear Mr. Forren:

The Bush administration's plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below is unacceptable. Mountaintop removal mining and valley fills should not be allowed, and the laws and regulations that protect clean water must not be weakened. I'm disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. 1-9 1-10

S. Hickman
1584 Woodlyn Rd.
Pasadena CA 91104

Sincerely,

Susan L. Hickman
Pasadena California

REC'D JAN 2

----- Forwarded by David Rider/R3/USEPA/US on 11/20/2003 04:42 PM -----

Sanford Higginbotham <blowhole@hawaiian.net> To: R3 Mountaintop@EPA
cc:
Subject: ENOUGH(!) poilution from Mountaintop Mining

11/09/2003 08:42 PM

November 09, 2003

John Forren, Environmental Protection Agency
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am so strongly opposed to each of the alternatives evaluated in your May 29,
2003 draft Environmental Impact Statement (EIS) with reference to subject.

The EIS shows indisputable evidence of the devastating and irreversible environmental
harm, as well as flooding, caused by mountaintop mining. 1-5

Each of the alternatives in the draft EIS ignores the findings of these studies.
The draft EIS does not examine a single alternative that would reduce those impacts.

Thank you for your consideration.

Sincerely,

Sanford Higginbotham
P.O. Box 253 P.O. 223300
Princeville, HI 96722-5342
USA
blowhole@hawaiian.net

REC'D JAN 23 2004

2410 Peacock Rd.
Paris, Ky 40361
1/18/04

John Forren
Us. EPA
1650 Arch St.
Philad, PA 19103
Dear Mr. Forren,

I am writing concerning the possibility of letting go of the 25-year "buffer zone" on mountain top removal. This defies your own study results! Clearly there is some interest being served other than the citizens of the country. 1-10

The method of mining that totally ruins the mountains by scraping the tops off & throwing them into the streams & valleys serves only the companies making a profit. It hurts the local countryside & people. There is no excuse for this devastating procedure to be permitted 1-9

Thank you.
Sincerely,
Monica M. Hill

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"hiller@alum.mit.edu" <hiller
01/06/2004 03:00 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities.

According to the draft EIS, the environmental effects of mountaintop removal are widespread, devastating and permanent. Yet the draft EIS proposes no restrictions on this practice. If we would support the expansion of pollution-free renewables instead of ignoring the outrageous costs associated with coal, the entire world would be better off! 1-5

Sincerely,

Marty Hiller
128 Rachel Carson Way
Ithaca, NY 14850
hiller@alum.mit.edu

1/18/04

REC'D JAN 23 2004

John Forren:

I am opposed to any changes that would weaken the laws & regulations that protect clean water. I especially am worried about the proposed changes to the stream buffer zone rule that prohibits mining activity within 100 ft. of streams. 1-10 Leveling mountains & burying streams is wrong and must stop. Allowing these activities ignores the science and evidence about how awful mountain top removal is and ignores Americans concerns & demands for clean water. 1-9

Sincerely,

Danita Hines
3408 Stillwater
Lexington, Ky

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

rbhiser1@aol.com
01/01/2004 08:45 AM

To: R3 Mountaintop@EPA
cc:
Subject: Mountaintop Mining

After living seventeen years in the Wheeling, WV area and seeing first hand
the moonscape created by surface mining in Belmont County, OH, I cannot believe
we are willing to sacrifice our mountains to the same fate.
I equate this mining method to cigarette smoking, you know that drawing smoke
into your lungs can't be good for you yet you do it.
The small number of jobs and little tax money derived from these operations
cannot possibly be worth the removal for all time of the beauty and function
that nature has provided us since the beginnings of time.
Let us Please, for once, use some common sense and make some sensible decisions for our future generations.
Robert B. Hiser
Elkview, WV.

1-9

----- Forwarded by David Rider/R3/USEPA/US on 01/20/2004 09:08 AM -----

Paul Hodder
<phodder@catalystrx.com>
01/19/2004 06:27 PM

To: R3 Mountaintop@EPA
cc:
Subject:

I received information on the impending EIS on mountaintop coal mining and am wondering if that would also affect the type of road construction going on now in the state of West Virginia. I've seen the results and the view is devastating. My understanding is that as they blow the top off of these mountains that they are also removing the coal so that they can increase the amount of acid rain falling on the streams in this part of Appalachia.

Thanks,
Paul A. Hodder
Manager, Software Development
CatalystRx
301-548-2956
phodder@catalystrx.com
ole0.bmp

Sharon Hodges

12-20-03

To Mr. John Forren: REC'D DEC 29 2003

I urge you not to weaken environmental protections for the devastating practice of mountaintop mining. The Draft Environmental Impact Statement fails to adequately address how to dramatically reduce the environmental harm from mountaintop mining.

Sincerely,

Sharon Hodges

HCR1 Box 108 Leakey, TX 78873

1-10

Steve Hodges

----- Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:49 PM -----

Steve Hodges <steveh@overhome.net> 01/06/2004 04:34 PM

To: R3 Mountaintop@EPA

cc:

Subject: mountaintop removal

John Forren
EPA

Dear Mr. Forren,

I oppose mountaintop removal and valley fills and any change in the rule protecting stream buffer zones. I am disappointed and angry that the federal government is ignoring its own studies by proposing to reduce protections for people and the environment. I demand a new study that looks at the alternatives to prevent new mountaintop removal and valley fill operations and to stop the existing ones within 5 years or by the expiration of the current mining permit, whichever date occurs first.

1-5

Sincerely,

Steve Hodges
594 Hoot Owl Hollow
Kyles Ford, TN 37765

Andy Hodgman

REC'D JAN 2 6 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Jan 17, 2004

Dear Mr. Forren,

Please consider the permanent ramifications of the proposed weakening of environmental policy regarding mountaintop strip mining for coal. It is imperative that we protect our resources despite efforts to the contrary by the current presidential administration to do otherwise. It would be very disappointing to find out in the future that the trickle down effect were even more harmful than now believed by such a practice. I do not believe the environment is worth sacrificing in any instance and much less for the strip mining of coal mined by such means as blowing the tops off mountains. It is unfortunate that the political circumstances currently dictate a weak environmental policy but it is time to stand up and take notice whether Democrat or Republican and this would be a step in the right direction. 1-10

Regards,

Andy Hodgman
1911 W.. Belle Plaine Ave
Chicago, IL 60613

Karen Holl

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO — SANTA BARBARA • SANTA CRUZ

Dr. Karen D. Holl
Associate Professor
Environmental Studies Department
461 Natural Sciences II
(831) 459-3468

INTERNET: kholl@ucsc.edu
FAX: (831) 459-4015

SANTA CRUZ, CALIFORNIA 95064

REC'D JAN 2 6 2004

January 20, 2004

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am writing in opposition to the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, destroy forests and bury streams in the valleys below. Even the administration's draft Environmental Impact Statement (EIS) on mountaintop removal coal mining acknowledges that the environmental effects of this practice are devastating and permanent. As a scientist who has studied ecosystem recovery after mining I know the extent of the effects of large-scale coal surface mining. Even under the best of conditions recovery of these ecosystems can be slow, but when large areas of forest are cleared dispersal of seeds to colonize the areas is minimal which may impede recovery further. The streams in this region host a high diversity of fish and mussel species that are extremely sensitive to sedimentation, yet entire streams are being filled. Moreover, this type of mining negatively affects the people in the region through degrading the water quality, as well as reducing the recreational income in the region. 1-9

I am appalled that the draft EIS states that the Bush administration's preferred alternative for addressing the enormous problems caused by mountaintop removal coal mining is to weaken existing environmental protections. The role of the Environmental Protection Agency is to protect the health and resources of the people of the U.S., not to weaken the very regulations that do so. The draft EIS proposes streamlining the permitting process, allowing mountaintop removal and associated valley fills to continue at an accelerated rate. I am completely perplexed as to why the EPA would allow a practice as environmentally devastating as mountaintop mining to expand with minimal regulation. 1-10

Instead of allowing mountaintop removal to continue unabated and even increase, the Bush administration needs to consider alternatives that reduce the environmental impacts of mountaintop removal, such as restricting the size of mountaintop removal jobs and requiring thorough reclamation of those sites. The whole point of the EIS process is to acknowledge impacts and seriously consider lower impact alternatives. In this case, it seems the administration is ignoring any alternatives that do not maximize the profits of the coal companies. 1-7

I urge you to show some common sense and prevent the loosening of regulations that help to protect the people and ecosystems of this region from this devastating practice.

Sincerely,

Karen D. Holl

Karen Holl, Ph.D.

Holl, K. D. 2002. The effect of coal surface mine revegetation practices on long-term vegetation recovery. *Journal of Applied Ecology* 39: 960-970.
Holl, K. D. and J. Cairns, Jr. 1994. Vegetational community development on reclaimed coal surface mines in Virginia. *Bulletin of the Torrey Botanical Club* 121:327-337.

December 16, 2003

Mr. John Forren EPA
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

REC'D DEC 2 1 2003

Dear Mr. John Forren EPA,

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. 1-9

In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-10

The federal government has ignored its own studies on protections for people and the environment. I, therefore, do not support any of the three alternatives contained within the Environmental Impact Statement Report. All three options will make it easier for companies to destroy streams, endangering wildlife and nearby communities. 1-5
Once they are gone, they will be gone forever.

Note: I am a native Philadelphian, graduate of Central High School and the University of Pennsylvania. I would not want Tennessee's beauty destroyed any more than I would Pennsylvania's.

Sincerely,

Mark D. Homer

Mark Homer
601 S Peters Rd
Apt. 55
Knoxville, TN 37922-4358

DeliveredDate: 01/05/2004 12:52:43 PM

The way coal is removed in mountaintop removal mining needs to be changed from the way it has been done in the past. Personally I would like to see it stopped altogether. But I know that is not a reality today. The extractive industry, as well as all those in the coal consumption chain, need to make their companies as environmentally benign as possible. It is my understanding that in the past environmental laws have been broken by companies practicing mountaintop removal mining. This needs to stop, not by rewriting the law so that illegal practices can be made legal (every criminal would want that), but by enforcement and prosecution. 1-9

Mountaintop removal is not only extremely environmentally degrading but it also has serious consequences for the communities around the mine. This societal dimension also needs addressing. I believe that even if the coal extractive companies were to be environmentally and socially conscience coal would still be very competitive with other energy sources. Thank you, John Honeck 315
W Newhall #7, Waukesha WI 53186.

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:48 PM -----

John Hopkins
<wrmfv@yahoo.com> To: R3 Mountaintop@EPA
cc:
01/06/2004 04:14 PM Subject: Comment on mountaintop removal mining EIS

I oppose loosening rules on mountaintop removal mining. 1-10

Of all forms of resource extraction, large scale surface mining has one of the longest lasting and most radical impacts on the land. Timber, gas, or petroleum extraction can have severe impacts, expecially if not managed properly for environmental considerations, but most of the impact of these activities will fade after a few hundred years. With MTR mining, the alteration of the natural landforms, rocks, and streams of the Appalachians will persist on a geologic timescale, thousands or tens of thousands of years. We aren't using these resources to produce durable goods such as steel--most of it will be burned for a one shot production of energy. And with regard to development of industry, flood-proof housing, etc. there is enough land surface-mined already to allow for hundreds of years of building.

Astronomers have given us magnificent photos of deep space, and physicists concepts of the infinitesimal. These provide us with glimpses of "the mind of God" (however one conceives of the creative force behind the universe). These realms remain distant visions to us as humans. But a human can walk across a wild mountain, one can touch it and smell it. The human world is a wondrous--and horrific--part of nature too, but the natural world is uniquely grounding for mental and spiritual health because it bypasses the immensely tangled layers of human ideas, goals, and conceits. 1-9

The earth doesn't care. The loosers will be our children, our descendents. For a party of a couple-of-hundred years of cheap energy, West Virginia children of centuries to come will inherit not a landscape that gives us a peek at the "mind of God" but instead a landscape that is pockmarked with landfills and slumping sandtrap-like features, a
landscape of human designs and motives.

Now I'm as impure as the next guy, I'm addicted like everyone else to this cheap energy. And of course, most of the land that isn't uninhabitable in the world is dedicated to human purposes. Buts it's a question of degree. Where are we going to stop? How can we start turning in a different direction so that we don't have to continue shredding wild lands to maintain our civilization? The tools of late industrial civilization give us the ability to destroy huge areas in record time.
But they also give us alternatives, too-little discussed and valued, to move in different directions--without going back to the stone age.

John H Hopkins
e-mail, wrmfv@yahoo.com

----- Forwarded by David Rider/R3/USEPA/US on 01/23/2004 09:38 AM -----

"Patricia R. Hopkins" <buffalowoman@lamere.net> 01/12/2004 06:07 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Limit the Destruction Caused By Mountaintop Removal Mining | 1-9

Patricia R. Hopkins
75 Raymond Street
Biddeford, ME 04005

January 12, 2004

John Forren
US EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Forren:

75 Raymond Street

Cordially,

Patricia R. Hopkins

2843 Dover Road Northwest
Atlanta, Georgia 30327

PIERRE HOWARD
REC'D JAN 0 9 2004

Jan 5, 2004

Dear Mr. Forren,

I am a taxpayer and U.S. citizen aged 61 who served almost 30 years in Georgia in elected office. I am still a holiner in the system, and I am writing you to plead for your help.

The proposal to denude over 380,000 acres of mature hardwood forest over the next ten years in order to allow the coal industry to go forward with their mountain-top removal will be extremely harmful to many species of birds including the (over) | 8-1-2

Cerulean Warbler whose population is in steep decline. Why must the industry always win? Why can't the EPA place the proper value on preserving mature forest bird species? I just can't tell you how strongly I oppose the industry proposal. It is just dead wrong - to destroy the mountains put there by God Almighty | 1-9

Sincerely,
Pierre Howard

----- Forwarded by David Rider/R3/USEPA/US on 01/23/2004 09:42 AM -----

"renee@tcwn.org"
<renee
01/21/2004 08:52 AM

To: R3 Mountaintop@EPA
cc:
Subject: Support clean water!

Mr. John Forren
U.S. EPA (3EA30)

Dear Mr. Forren,

Please reduce the harmful effects of mountaintop removal coal mining to protect natural resources and communities and do not weaken environmental protections that apply to the companies that are conducting mountaintop removal. 1-10

The draft Environmental Impact Statement (EIS) on mountaintop removal should be rewritten to recommend limits on the size of valley fills that bury streams and imperil wildlife. 1-7

The draft Environmental Impact Statement should not do away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams. 1-10

Sincerely,
Renee Hoyos
327 E. Quincy Ave
knoxville, TN 37917

Patrick Huber
721 E. 11th St.
Davis, CA 95616

Dear EPA:

I am writing in regards to the mining technique of mountaintop removal, especially practiced in the Appalachian region. The waterways of this part of the country are some of the biologically richest in the world. They deserve the utmost care in our management of them. Wholesale dumping of mountains into these streams does not fit anywhere near this category.

As such, every alternative described in this current EIS falls woefully short; none are acceptable. Every alternative acknowledges the devastation caused by this technique, yet none lays out a means of dealing with it. In fact, the "preferred alternative" (evidently "preferred" by coal companies) threatens to further reduce the already paltry regulations concerning this degradation. This includes the elimination of the stream buffer rule and valley fills, and the transfer of Clean Water Act regulatory powers to agencies that have not had that role in the past and are not meant to deal with this issue. Any new rule concerning mountaintop removal should be focused on strengthening environmental regulations (hence the name of your agency), not the facilitation of further ecological damage. 1-5 1-10

Please do not continue forward with the current EIS. The incredible aquatic ecosystems of the Appalachians call for a new approach to this issue.

Sincerely,

Patrick Huber

----- Forwarded by David Rider/R3/USEPA/US on 11/20/2003 04:48 PM -----

Barbara Hutchison-Smith <bhsongbird@citynet.net> 11/10/2003 11:02 AM

To: R3 Mountaintop@EPA
cc:
Subject: My plea for help in saving our mountains.

November 10, 2003

John Forren, Environmental Protection Agency
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am lifelong resident of the state of West Virginia, the mountain state.
We are a people who feel protected by our mountains and the beauty they display.
There are many people in this state whose livelihood is derived from tourism.
If our mountains are allowed to be devistated by the practice of mountain top
removal who will want to come to our beautiful state? We simply cannot stand
by and watch silently while we are made the energy sacrifice zone for America. 11-7-2

This is an obscene practice and must be curtailed completelyI am opposed
to any
changes that would weaken the laws and regulations that protect our rivers and
streams from the effects of mountaintop mining and valley fills. As a result, 1-10

I am opposed to each of the alternatives evaluated in your May 23, 2003 draft
Environmental Impact Statement (EIS). 1-5

Your draft EIS contains indisputable evidence of the devastating and irreversible
environmental harm caused by mountaintop mining. Other agency studies also show
that mountaintop mining contributes to flooding disasters in mountain
communities. 4-2

Unfortunately, each of the alternatives in the draft EIS ignores the findings
of these studies and the very purpose of the EIS- to find ways to minimize, to
the maximum extent practical, the environmental consequences of mountaintop mining.
The draft EIS does not examine a single alternative that would reduce those impacts.

Worse, your "preferred alternative" would clearly increase the damage from mountaintop
mining by eliminating the Surface Mining Control and Reclamation Act's buffer
zone rule that prohibits mining activities that disturb any area within 100 feet
of larger streams, eliminating the current limit on using nationwide permits to
approve valley fills in West Virginia that are larger than 250 acres, and giving
the Office of Surface Mining a significant new role in Clean Water Act permitting
for mountaintop mining (a role it does not have under current law). 4-2

Our environmental laws require, and the citizens of the region deserve, a full
evaluation of ways to reduce the unacceptable impacts of mountaintop mining.
I urge you to abandon your "preferred alternative" and to reevaluate a full range
of options that will minimize the enormous environmental and economic damage caused
by mountaintop mining and valley fills.

Thank you for your consideration.

Sincerely,

Barbara Hutchison-Smith
211 Dwyer Ln
Lewisburg, WV 24901-1205
USA
bhsongbird@citynet.net

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"momcatsmac@aol.c
om" <momcatsmac
01/06/2004 12:39
PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal
Mining

Dear Mr. John Forren, Project Manager,

STOP mountaintop removal! It destroys trees, displaces wildlife, and the removed debris fills streams and pollutes valleys, making uninhabitable homes of people who live there. 1-9

Have the courage to stand up for right! Mountaintop removal is wrong on every level that matters to our environment and it disregards and burdens a significant part of our population.

Sincerely,

Martha Hutson
9422 Fern Hollow Way
Montgomery Village, MD 20886
momcatsmac@aol.com

Carole L. Hyre
115 Wilton Avenue
Elkins, WV 26241-3260
304-636-5175
caroleh@direcway.com

REC'D DEC 1 8 2003

John Forren, US EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

December 11, 2003

Dear Mr. Forren:

I am opposed to mountaintop removal mining and the Bush Administration's recommendation that would expand its practice. This destructive mining practice destroys biologically rich forests, buries streams and creeks, devastates the quality of life in mountain communities and causes frequent and severe flooding. 1-9

This is no time to erase restrictions on mountaintop removal permits and ignore existing environmental protections. I urge the Environmental Protection Agency to reject President Bush's proposed rule changes and to protect Appalachia's environment, heritage, and communities by ending mountain top removal. 1-10

I am an avid hiker, and I hope that we can continue to walk the land and enjoy our beautiful state. Please, help keep our mountain heritage pristine.

Thank you.

Carole Hyre
Carole Hyre

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"bobiles@juno.com
" <bobiles To: R3 Mountaintop@EPA
cc:
01/06/2004 05:33 Subject: Please Stop Destructive Mountaintop Removal Mining
PM

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining.

What is proposed is an absolute rape of nature with no control over the damage, no consideration for the wildlife or the environment. 1-9

There are other energy alternatives - this abomination is completely unnecessary.

Sincerely,

Robert Iles
1327 Hernandes Drive
Orlando, FL 32808
bobiles@juno.com

AUG 29 2003
RECD

August 28, 2003

Mr. John Forren
US EPA (3ES30)
1650 Arch Street
Philadelphia, PA. 19103

Mr. Forren:

Please accept this letter as my comments on the draft Environmental Impact Statement (EIS) on mountaintop removal for coal mining.

This draft EIS proposes no restrictions on mountaintop removal. That's ridiculous. The proposed alternative should be to stop mountaintop removal immediately. 1-8

Few things are as destructive as mountaintop removal. How can one strip a mountaintop and throw the debris in a streambed and not be in violation of the Clean Water Act? Mountaintop removal is a crime against nature. It is disgusting and indefensible.

I live in Utah but I love the eastern mountains. I care deeply about what happens in West Virginia and the entire Appalachian range. 1-9

The EPA should be making every effort to stop mountaintop removal, not to make it easier to get permits for it.

Sincerely,

Michael A. Jablonski

Michael A. Jablonski
125 East 500 South
River Heights, Utah

REC'D AUG 1 1 2003

August 4, 2003

To whom it may concern:

I feel the need to express my opinion regarding the draft EIS. I have worked with the mining industry for many years and feel they are doing a good job in reclaiming the land they mine. This was not the case years ago, but improvements have been made and today the land is much more useful after it is mined. A majority of the water pollution comes from garbage being dumped in our streams. Our wildlife population is on the increase. 19-3-2 5-5-2 7-2-2

Without the coal mining industry, people in Eastern Kentucky would be devastated. We are among the poorest counties in the nation, and without the coal industry I do not see how a lot of our families that rely on the coal industry to provide for them would survive. 11-1-2

I feel the regulations are strict enough and that they are being properly enforced. I do not believe that a change in the regulations is necessary at this time. 1-12

Thank you,

Donnie Jackson
260 Belles Fork Rd.
Manchester, KY 40962

Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:45 PM -----

Gordon James <gtjames1940@yahoo.com> 12/30/2003 07:42 PM
To: R3 Mountaintop@EPA
cc:
Subject: Strengthen draft EIS on mountaintop removal coal mining

December 30, 2003

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

Please change the EPA's draft environmental impact statement on mountaintop removal mining. This is a horrible destruction of Appalachian ecosystems and beautiful natural areas. 1-9

Sincerely,

Gordon James
3036 S. Cherry Way
Denver, CO 80222
USA

My name is Roberta James. I have worked for Kentucky Coal Association for over thirty years. I have seen many changes through the years, especially in the areas of reclamation. The industry has turned old mine sites into wild life habitats, airports, schools, hospitals, golf courses, parks, housing, etc. It has given the mountainous areas of eastern Kentucky much needed flat land to improve their economies and has brought more jobs to the area.

The coal industry is a heavily regulated industry. The coal companies are required by law to reclaim the land once mining is done. It is reclaimed to equal or better than status then before mining began. Kentucky has had many years of successful reclamation. When new trees, grass, etc are planted, it takes nature some time for the trees to grow and vegetation to produce to what it was before mining. We all know that heavy rains, forest fires, and acts of God can destroy wildlife and nature.... not just coal mining as some people would have you believe. Road construction gives us flatter and wider roads to travel on. While this construction is going on the area looks bad. But once it is completed, we travel the roads and enjoy the quicker access it gives us with the improvements that are made. 19-3-2

Building construction tears up the land until the school, airport, hospital, golf course and/or parks are completed and replanted. People in these areas use the facilities, sometimes not fully realizing or remembering how it was before mining and reclamation. These new facilities bring employment and new life to the areas.

The home I bought a few years ago is heated by natural gas (not my choice). All my appliances (air conditioner, washer, dryer, water heater, stove, etc.) are all electric. My electric bill is cheaper than my gas bill. If we went to an alternative source for electric I'm sure my electric bill would rise. Coal keeps the costs down. It has been around for centuries and will continue to be there. It is a product of nature and has many uses other than fuel. Some of the products of coal are: paint pigments, perfumes, insecticide, fertilizers, batteries, paving, baking soda..... to name a few.

The industry has employed many people and families for decades and will continue to do so. It has given many families a decent home and life. Money is returned to the counties through coal severance tax. This also helps the area grow. 11-1-2 11-4-2

Doing away with the coal industry, or a part of it, will have a devastating effect on the economy. It will do more harm in the long run than good. I support the industry and will continue to do so. It has given me a good job in which to raise my family and provide for them.

Roberta A James

Roberta A. James
720 Dardanelles Dr.
Lexington, KY 40503

August 20, 2003 REC'D AUG 26 2003

John Forren
U.S.EPA (3ES30)
1650 Arch St
Philadelphia, PA 19103

Dear Mr. Forren:

I am writing to urge you not to do away with the "buffer zone" rule that protects streams from the impact of mountaintop removal. The government should be strengthening, not weakening, protections for people and the environment. 1-10

There is plenty of evidence for the position that mountaintop removal is detrimental to human life, water and aquatic life. Do you and President Bush care more about the coal companies' profits than about this country and its citizens? 1-9

Sincerely,

Phyllis Jenness

Phyllis Jenness
360 Garden Rd.
Lexington, KY 40502

cc: President Bush
Senator Mitch McConnell
Senator Jim Bunning
Representative Ernie Fletcher

REC'D DEC 29 2003

112 Newcrest Lane
Oak Ridge, TN 37830
23 December 2003

U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA

Dear Mr. Forren:

I am an American citizen writing to comment on the draft Environmental Impact Statement that the E.P.A recently issued concerning mountaintop removal mining.

I was most distressed to see that ALL of the alternatives offered in the DEIS will do away with regulations prohibiting mining within 100 feet of streams. The attendant burial of the headwaters of streams and rivers cannot help but have a devastating effect on water quality. 1-5

As one who has a Ph.D. in Forest Soil Science and a master degree in watershed management, I find all of the EPA's proposed alternatives totally unacceptable. But it does not take a soil scientist who has worked in the area of mine reclamation to realize the devastating effect of this type of activity. Historical records abound which demonstrate the impact on stream water quality — both from sediment, acid mine drainage, altered quantities and timing of runoff, etc. of such drastic approaches to mining.

In addition, impacts on wildlife habitat could also be devastating. Much of the land in the eastern U.S. that is amenable to mountaintop mining removal is prime habitat for a number of threatened species, such as the Cerulean Warbler. 8-1-2

The motivation for EPA's approach to altering mining practices that have been appropriately regulated for decades — at this time — is totally unclear. Are we so desperate for coal that we are willing to destroy nature in this manner to get it? Or are there powerful interests pressuring the government to have their own way?

If the Environmental Protection Agency continues on such a path, it will need to change its name.

Sincerely,

John Devereux Jodine, Jr.

----- Forwarded by David Rider/R3/USEPA/US on 11/20/2003 02:34 PM -----

emily johnson
<dbricker@marin.k
12.ca.us>

To: R3

cc:
Subject: Save Streams

Mountaintop@EPA
from Mountaintop Mining
11/07/2003 09:12
PM

November 07, 2003

John Forren, Environmental Protection Agency
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am opposed to any changes that would weaken the laws and regulations that
protect our rivers and streams from the effects of mountaintop mining and valley
fills. As a result, I am opposed to each of the alternatives evaluated in your
May 29, 2003 draft Environmental Impact Statement (EIS). 1-10 1-5

Thank you for your consideration.

Sincerely,

emily johnson
135 Mount Whitney Ct
San Rafael, CA 94903-1034
USA
dbricker@marin.k12.ca.us

Jane Johnson
82 Antioch Rd
Crab Orchard, TN 37723

REC'D JAN 2 3 2004

JULY 22, 2003

John Forren
US EPA
1650 Arch St
Philadelphia, PA 19103

Twenty-two people have reported that their houses have been badly shaken up by blasting from the Cumberland Coal Company mine on Smith Mountain in Cumberland County, Tennessee.

Of these twenty-two people, twelve have reported damage to their houses and property.

It is NOT legal to damage houses and property with blasting from a mine: the Surface Mining Control and Reclamation Act (SMCRA) requires operators to design a blasting plan which will prevent injuries to persons and property outside the Permit Area, legal number 30CFR817.67.

It is extremely important that the above law, 30CFR817.67, be enforced. 16-1-1

Sincerely,

Jane L. Johnson

Jane L. Johnson

John Johnson
Date: 1/04/2004
City: Chattanooga State: TN Zip: 37401

Will facilitate Destruction: The idea that such a practice as mountain top removal is even allowed, let alone requires a scientific study, shows just how insane the US Government and its corporate sponsors have become. It is patently obvious that mountain top removal is genocide and ecocide of the highest order. Simply, it destroys life. Why do you need to do a study to figure that out? As mountain top a removal destroys all life that it comes near, both human and non-human, it should be ILLEGAL and abolished. If you profit blinded fools can not see the destruction caused by mountain top removal and the subsequent necessity of banning the practice, than you are no longer worthy of our respect or your job. In short, ABOLISH, OUTLAW, BAN or otherwise make illegal mountain top removal and ALL other variations of destructive strip mining or RESIGN. There is no need to belabor the finer points of your draft EIS here. Mountain top removal `destroys the living mountain, forest and aquatic ecosystems that make life possible and desirable in Southern and Central Appalachia. 1-9

For that reason alone it should be abolished. Make it illegal or the outraged populace will make your ineffectual bureaucracy obsolete. For the mountains, John Johnson of, but not necessarily for, Katuah Earth First, P.O. Box 281 Chattanooga, TN 37401 ps. please put my US postal address (above) on all future NEPA scoping and comment lists relating g to mountain top removal in central and southern appalachia. pps. please respond so that I know you received these comments.

August 1, 2003

REC'D DEC 24 2003

My home is in the heart of your study area and in the belly of the beast--the beast is the greedy, irresponsible coal barons and the corrupt regulatory agencies and politicians that serve as the minions of this beast.

This draft EIS is a blueprint for continued assault upon the people of Appalachia, a declaration of war upon our children, their children and GOD'S creation. Enough, **STOP Mountaintop Removal, NOW!!!!!** How Many Tons of explosives used in Appalachia a day? 1-9
This EIS encourages the coal industry to continue to use—to rape and take—Appalachia and her people—as a national sacrifice zone.

This EIS did NOT study the cumulative effects of environmental, community, human, cultural; health and socio-economic impacts of post, present and future Valley fill mining. How did you study the environmental justice impacts in this draft? You did not study the cultural, community, people and property being destroyed by this mining method, you dismissed it. 10-7-2

I demand a revised EIS that includes cumulative impacts of cultural, social, emotional, and spiritual and health problems of communities affected by Mountaintop Removal.

A partial cultural study already exists, this study by Dr. Mary Hufford is available on the Library of Congress website and Dr. Hufford---Dr. of Ethnography can be reached at the University of Penn. Our mountain culture has been her long before the white settlers came and before 9-4-2
Commercial coal mining began. Our culture will be here long after the coal is gone!

It is believed that many people in Mountaintop Removal Effected communities suffer from Post Traumatic Stress Disorder--from blasting and flooding. How dare you dismiss the suffering of low income and the invisible minority people of central Appalachia!! How dare you dismiss and defy the Executive Order dealing with environmental justice, the low income and minority people. 10-7-2

Your own study says that this area is well above the average in poverty and unemployment. Where is the study on socio-economic problems of the area? Why are the people in the coal rich counties the poorest? What are the **ACTUAL costs** to the communities and people that suffer the effects of Mountaintop Removal? This mining effects the very poor, the powerless and oppressed people. Economic Development of these artificial sites? Only 6% of these destroyed mountains are ever given any economic development for the affected communities. Where is the study on this?—I want to see the figures and a study on how much "prosperity" goes back to Buglar Hollow or Bob White or Montcoal, or any small mining community. 10-2-2

In the last 6 months, 2 schools in the Coal River Valley, Both surrounded by many Massey mining permits, was closed. Sending our children on very, very long bus rides. One was at Montcoal—Marsh Fork High School-----where is the support---where's the money? The Raleigh County Board of Educations said it does NOT receive a red cent from coal tax for education---coal says it gives---who is lying? **I want to see a report on that.**

The scientific evidence of this study shows that Mountaintop Removal is environmentally insane, but the recommendations by the administration is to make it easier for the greedy coal companies to destroy everything, which leads me to believe that even worse scientific evidence was omitted from this study. Even so, your report makes an airtight case against your conclusions. Your report and your conclusions strongly contradict. Did a complete idiot write the conclusions?

AS a fellow Christian I challenge President Bush to come to the coalfield hollows in central Appalachia and talk with the blasted, flooded, poor and the oppressed people impacted by Mountaintop Removal. I ask President Bush to investigate his agencies, No true Christian would allow these evil abuses to continue. I am sure once the President discovers these crimes against the citizens of Appalachia, he will stop Mountaintop Removal. NO true GOD-fearing man would allow these crimes to continue.

People should NOT have to make a choice between a job now and destroying their children's future, making their neighbors suffer and selling their eternal souls in the bargain.
Revelation 11:18
Thy wrath is come, that they should be judged, and that thou shouldest give reward unto thy servants the prophets and to the saints and them that fear thy name, small and great; and shouldest destroy them which destroy the Earth.

HOW VERY, VERY ARROGANT OF MAN TO THINK HE CAN DESTROY GOD'S CREATION.

Lorelei Scarles Rock Creek, WV 25174
Pamela Shew Arnett, WV
Lucas Lundurson Rock Creek, WV 25174
Raven Regalado Rock Creek, WV 25174
Andrew Jones Rock Creek, WV. 25174

Mr. John Forren
U.S. EPA
1650 Arch St.
Philadelphia, Pennsylvania
19103

REC'D JAN 0 5 2004

Dear Mr. Forren:

Please consider the disastrous effects of moutaintop coal removal practices as you establish environmental policies and enforce laws and regulations.

Many people in the United States love the Appalachian Mountains, especially the mountains of West Virginia. It is shocking to see the devastation caused by valley fills, the destruction of mountains that can never be replaced for any generation, and the wholesale ignorance displayed by strip mining.

Environmental policy should protect the environment, not allowing its destruction for any reason. Our government should not ignore the wishes of the people to preserve the mountains. Mountaintop removal is short-sighted and regulations should not favor business over our natural heritage. Poor people are being exploited as is the land.

Please use the power of your position to protect the mountains and the people who live there who are being flooded out and run out by noise and devastation from the coal companies' destructive practices.

1-9

Sincerely,

Deborah Jones

Deborah Jones
8415 Yolanda Road
Richmond, VA 23229

January 1, 2004

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"lwmwj@patmedia.net" <lwmwj To: R3 Mountaintop@EPA
cc:
01/06/2004 01:24 PM Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities.

1-5

The Bush administration must consider alternatives.

Sincerely,

Lora Jones
7 Springhill Road
Annandale, NJ 08801
lwmwj@patmedia.net

Bulan, Ky
Dec. 27. 03

REC'D JAN 0 2 2004

Dear Mr. Fossum,

I have some Comments on mountaintop removeable. In 1998 as part of a law suit settlement, the federal government agreed to Create an environmental impact statement About mountaintop removal Mining and Valley fills. The Purpose of the report.

To evaluate Options for improving agency Programs under the Clean Water Act (CWA) Surface Mining Control and Reclamation Act (SMCRA) and Endangered Species Act (ESA) that will Contribute to reducing the adverse environmental impacts of Mountaintop removal Operations and excess spoil Valley fills in Appalachia.

This report was supposed to be released in late 2000. The Bush Administration has refused to release it for several years because it did not like the results of the Government's Own studies. The recommendations Contained in the E.I.S report are a sham and a shame. They will not protect our Water or our streams and forests.

It makes me Angry for the Way they

REC'D JAN 0 2 2004

get away with doing what they want to us, destroying our land, water, That is why I'm against Mountaintop removable, Mining and Valley fills. 1-9

I opposed any Changes that would weaken the laws and regulations that protect Clean water. 1-10

I oppose the Proposal to change the stream buffer zone rule that prohibits Mining Activity within 100 feet of streams.

I Welcome the scientific studies that documents the widespread and irreversible damage the Coal industry is doing to our State and region.

I do not support Alternatives #1, 2 and 3 Contained within the E.I.S report. None of the Options will protect our Water, Communities, we will not have a better future for Kentucky or region. They only want to make it easier for the Coal industry to get Permits to Continue to destroy our land, Water, and People. I think the Bush Administration is Cheering the Coal industry on to destroy Kentucky. 1-5

Sincerely
Mary Lou Jones
20 Millards Fork
Bulan, Ky 41722

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

deforest@austin.r
r.com To: R3 Mountaintop@EPA
cc:
01/03/2004 11:02 Subject: Comments on Draft programmatic Environmental Impact Statement on mountaintop
PM removal coal mining

Enviromental Protection Agency Environmental Impact Statement

Dear Enviromental Protection Agency Environmental Impact Statement,

I'm writing in regards to Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. 1-9

Are you freaking NUTS???

Sincerely,

Tim Jones
313 Lone Oak Drive
Austin, Texas 78704

Mr. Richard E. Jorgensen
559 Valencia St. Ste. 46
San Francisco, CA 94110

REC'D JAN 0 7 2004

Mr. John Forren
US EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Sir:

For over a century, since the founding of the world's first national park, the United States has been a leader in environmental protection. That is, obviously, the very mission of your agency.

Thus, I find it horrific that our country and your agency should permit the drastic degradation of the Appalachian ecosystem by mountaintop mining. 1-9

Please do everything in your power to place this practice which has destroyed seven hundred miles of streams under the strictist regulation.

Thank you.

Sincerely,

Richard E. Jorgensen

31 December 2003

Richard E. Jorgensen, MFA

REC'D DEC 3 1 2003

December 28, 2003

From: Tom Joy
1156 Hightop Road, Lot 189
Blacksburg, VA 24060

To: John Forren
U.S. Environmental Protection Agency (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Subject: Comments on draft Mountaintop Removal Environmental Impact Statement (EIS)

Dear Mr. Forren:

I am opposed to mountaintop removal and valley fills. I believe that this immoral and illegal method of mining should be halted immediately and emphasis placed on developing the technology to mine thin seams of coal from underground. Alternatively, a method should be found to compensate coal companies for not mining coal that can currently only be removed by mountaintop removal. 1-9

My specific comments on the EIS follow:

1. The EIS appears to be an attempt at misdirection. It largely bypasses the primary environmental impact of the mining itself and addresses only the secondary environmental impact to contiguous areas that occurs after the mining is over.

2. The EIS is based on the implicit premise that all of the coal that is present must be removed. In locations where underground mining is not an option, this generally means mountaintop removal mining. However, to use mountaintop removal mining requires accepting an enormous and irrevocable environmental impact - the total eradication of the existing topography, hydrology, and ecology in the areas to be mined and filled. The only justifications provided for this wholesale environmental destruction are the improved efficiency and lower cost of coal removal. Only the morally bankrupt could regard these justifications as sufficient.

3. In the EIS, mitigation is proposed as a meaningful response to the environmental effects of mountaintop removal mining. In reality, the concept of mitigation fails completely to address the extremes of habitat destruction that characterize mountaintop removal mining. There is no way to mitigate the total loss of a mountain, valley or headwater stream, let alone the systematic eradication of thousands of them throughout the Appalachian region. These entities are unique and irreplaceable, and the esthetic, cultural, environmental, and economic consequences of their destruction can never be undone. Their loss will be a sad fact of life and a heavy burden to be borne by all future generations. 5-7-3

4. The EIS focuses primarily on stream loss and downstream hydrologic and ecologic consequences of valley fills. It fails to consider what consequences might result from the absence of the mountain that supplied the fill. What are the possible alterations in local climatic conditions, e.g., wind patterns, rainfall patterns, rainfall amounts and temperatures that might occur if one or several existing mountains were to be removed? 5-6-2

5. The end result of the coal-mining methods that are addressed by the EIS, particularly mountaintop removal mining, must be to alter the topography of an appreciable extent of the Appalachian Valley and Ridge Province. The EIS does not consider how the eventual removal of 30 to 40 percent of the mountains might alter regional climatic conditions and how that might affect the regional ecology.

6. The EIS should address the possibility that valley fills may be used to conceal the unpermitted dumping of non-hazardous and hazardous wastes in addition to mine spoil. Eyewitnesses have observed large numbers of used tires being disposed of in valley fills, and it is widely believed by area residents that frequent clandestine dumping of hazardous wastes in valley fills also occurs. 9-2-2

7. The EIS should consider as an alternative the use of underground mines alone to remove coal. All the prized Appalachian regional attributes of esthetics, ecology, and culture depend on the continued physical presence of the Appalachian Mountains themselves. Intact, the Appalachians represent an inexhaustible source of economic and lifestyle benefits to residents and visitors. By using only underground mines, original contour, hydrology, and ecology would be largely preserved. Thus, the most extreme negative impacts associated with mountaintop removal mining would be eliminated.

   If it is the case, as the EIS states, that coal seams less than 28 inches in thickness cannot be mined economically from underground, coal companies could receive a tax credit or other compensation for "banking" the coal in such areas. This would provide time for the development of technology that would allow that coal to be mined economically from underground. If the coal companies were compensated using money derived from tourism, they would have an incentive to conduct their mining and coal processing operations in an environmentally responsible manner.

Please feel free to contact me regarding any of these comments.

Sincerely,

Tom Joy

Tom Joy
Phone: (540) 951-2414

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"nspector12@aol.c
om" <nspector12 To: R3 Mountaintop@EPA
cc:
01/06/2004 03:45 Subject: Please Stop Destructive Mountaintop
Removal Mining
PM

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-5

According to the draft EIS, the environmental effects of mountaintop removal are widespread, devastating and permanent.

I urge you to immediately amend the draft EIS accordingly.

Sincerely,

Edward Kadane
7134 Tokalon
Dallas, TX 75214
nspector12@aol.com

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

Ray Kamstra
<rkamstra@masspir To: R3 Mountaintop@EPA
g.org> cc:
Subject: No to Mountain Top Removal!
01/06/2004 12:43
PM
Please respond to
rkamstra

John Forren,

I oppose mountaintop removal and valley fills and any change in the buffer zone rule. 1-9
I'm disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. 1-10

Sincerely,

Ray Kamstra
Malden, MA

Mr. John Forren
U.S. EPA
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 1 2 2004

RE: Comments on Draft Environmental Impact Statement on Mountaintop Removal Mining and Valley Fills.

Dear Mr. Forren,

Never in all my years of watching the coal industry despoil our lands, waters and communities have I seen a study about this rogue industry so biased and so cynical as to defy belief. Even to an idiot the destructive impact of mountaintop removal is eye-popping and hard to believe. 1-9

Finish your study with a little honesty. Recommend what is right, not what is politically right. We need help; please give us some, in light of the slant and conclusions geared to the coal industry in this first draft.

Sincerely,

Dan Kash
12629 Kelly Dr.
Ashland, KY 41102

REC'D JAN 2 6 2004

Dear Mr Forren

Mining practices that level mountaintops & bury streams should not be allowed, and the laws and regulations that protect our waters should not be weakened. 1-10 The federal government has proposed weakening environmental laws, rather than strengthening protections for people and the environment. Mountaintop removal is responsible for significant devastation to the Appalachian region. 1-9

Sincerely
Barry Katzen

B. Katzen
9543 Rutrick Ave
Chatsworth, CA 91311

REC'D

DeliveredDate: 01/06/2004 04:10:46 PM

Dear Mr. John Forren, Project Manager,

Dear Mr. Forren:

The current practice of mountain top removal for easier access to coal is a foolhardy one that both directly and indirectly endangers people and the environment they live in. Any brief research into the topic would show that only detrimental consequences result from this popular practice; it strips the land of essential nutrients, robs countless of species of their homes, and pollutes waterways. The litany of its harmful effects is virtually endless. This is not even taking into consideration the deleterious effects of fossil fuel consumption. Even land reclamation projects are not sufficient in remedying the environments that were entirely ravaged; the original array of species cannot generally function in the vastly changed ecosystem, and only generalist species migrate into the reclaimed region. It is a sign of environmental degradation when an abundance of generalist - not specialist - species inhabit an area because that signifies that it cannot support the higher qualities of the specialists. The damage done to the environment is irreparable, and this alone should be enough to prove that the practice's disadvantages far outweigh its few advantages. As a whole, people often forget that we depend upon the land for resources still, and this generation is not the last. But if we continue to treat the land with such disrespect, it will not last far into the future. John Muir said, "How glorious a greeting the sun gives the mountains!", but at this rate, there may one day be no mountains on which the sun can light its happy beams. Moreover, the harmful pollutants that are produced by both mining and the burning of fossil fuels are causing global warming, as well as respiratory diseases and other poor living conditions. Ansel Adams once succinctly stated, "It is horrifying that we have to fight our own government to save the environment." However, this need not be the case. The government has in its power to protect - nourish, celebrate - the environment. I strongly implore you to consider what you're doing to the environment - as well as to your posterity and yourself. Thank you for your time and consideration. 1-9

Sincerely,
Erin Renee Kazee

Erin Kazee
Rt. 1 Box 547
Flatwoods, KY 41139
erinkazee@yahoo.com

----- Forwarded by David Rider/R3/USEPA/US on 01/30/2004 11:21 AM -----

"rakmet@msn.com" <rakmet
01/14/2004 06:40 PM
To: R3 Mountaintop@EPA
cc:
Subject: Support clean water!

Mr. John Forren
U.S. EPA (3EA30)

Dear Mr. Forren,

Please reduce the harmful effects of mountaintop removal coal mining to protect natural resources and communities and do not weaken environmental protections that apply to the companies that are conducting mountaintop removal. 1-10

The draft Environmental Impact Statement (EIS) on mountaintop removal should be rewritten to recommend limits on the size of valley fills that bury streams and imperil wildlife. 1-7

The draft Environmental Impact Statement should not do away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams. 1-6

Sincerely,

Robert Keiilbach
134-28 60 Ave
Flushing, NY 11355

REC'D AUG 29 2003

910 Sunset Road
Ann Arbor, Michigan 48103
August 25, 2003

Mr. John Forren, U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, Pa 19103

Dear Sir,

I am wiriting to comment on the unfortunate, vague and inadequate recommendations made for action in response to EIS report regarding mountaintop removal mining and valley fills.

I am a graduate of Berea College and my mother was a Kentuckian. She would not only be shocked and dismayed (as I am also) at the wreckage of her beautiful state but would want to protest the cavalier way in which the current administration is "responding" to an EIS report documenting the extreme damage occurring at the hands of the coal companies in Kentucky.

Your report specifies weak and vague alternatives to correct the continuing irreversible damage being done to mountain streams and terrain. Why? Evidence in the report clearly indicated a need for a more specific and preventive role for our government. 1-5

It all boils down to who lives and loves Kentucky most.:

Is it the coal companies with their blind need for profits in a state that can do without this kind of destructive coal mining?

Is it President Bush who has already a long track record of assaults against the environment to profit big busienss?

Is it lawmakers in Frankfort, whose knees are too weak to behave like they should in opposing the continual destruction of their state for political gain?

You answer.

Sincerely yours,

Mary Corsi Kelley

Mary Corsi Kelley

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:39 AM -----

Cindy Kendrick <cindykendrick@comcast.net> 01/01/2004 01:23 PM

To: R3 Mountaintop@EPA
cc:
Subject: Comments on Mountaintop Removal EIS

Cindy Kendrick
7317 Dunsten Drive
Knoxville, TN 37931-1804
phone: 865-386-6382

January 1, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

Comments on Mountaintop Removal

While pondering the short-sightedness of the EIS on Mountaintop Removal, I am reminded of the words of Rachel Carson, in a letter to the editor of the Washington Post in 1963...

> ... the way is being cleared for a raid upon our natural resources that is without parallel within the present century.
>
> The real wealth of the Nation lies in the resources of the earth -- soil, water, forests, minerals, and wildlife. To utilize them for present needs while insuring their preservation for future generations requires a delicately balanced and continuing program, based on the most extensive research. Their administration is not properly, and cannot be, a matter of politics.
>
> By long tradition, the agencies responsible for these resources have been directed by men of professional stature and experience, who have understood, respected, and been guided by the findings of

their scientists....

For many years public-spirited citizens throughout the country have been working for the conservation of the natural resources, realizing their vital importance to the Nation. Apparently their hard-won progress is to be wiped out, as a politically minded Administration returns us to the dark ages of unrestrained exploitation and destruction.

It is one of the ironies of out times that, while concentrating on the defense of our country against enemies from without, we should be so heedless of those who would destroy it from within.

Forty years later, these words seem written specifically for today's crisis. We are indeed in a crisis situation. Much of the damage being wrought upon our natural resources under false or foolish pretenses of economic growth, national security, energy security, and progress is irreversible and irreparable. We ourselves are becoming our worst enemy. I appeal to you, John Forren, to be one of those "men of professional stature and experience," to be guided by science and reason, to take a leadership role to protect those resources that define our Country - and begin by completely reshaping this miserably inadequate EIS for mountaintop removal.

Embarrassingly, while the report acknowledges the significant damage inflicted by mountaintop removal and valley fill, it does not examine a single alternative that would reduce this damage. In fact, protection is substantially weakened. While this Administration claims to use science as a basis for its policies and there is plenty of solid science to show that mountaintop removal and valley fill are extremely damaging, this EIS gives greater license to coal companies to behead our Appalachian mountains and bury our precious streams. I am certainly opposed to weakening the stream buffer zone rule. In fact, 100 feet is not enough buffer to protect our fragile stream ecosystems against the acid leachate and siltation of such massive destruction. The stream buffer rule - or a stronger version - should be strictly enforced for all cases, including valley fills.

I am opposed to all three alternatives in the EIS, since none of them provides reasonable protection for our vital natural resources and neighboring communities. Since no reasonably protective measures can be offered to mitigate resulting damage, I am opposed to mountaintop removal mining, as well as crossridge mining, which would purport to restore obliterated mountaintops. The practice of filling valleys with rubble from decimated mountaintops is entirely ill-conceived, and certainly without scientific basis.

1-5

As I examine this EIS, I am angry - angry that this irresponsible and short-sighted set of alternatives is being pushed forward; angry that the mountains, forests, wildlife, clean water, and communities of Appalachia are treated with ill regard; angry that industry is being given great power over common people; and angry that voices like mine these days are falling on deaf ears. I hope you, John Forren, will be different.

Sincerely,

Cindy Kendrick

Mountaintop mining/Valley Fill DEIS comment

REC'D JAN 0 9 2004

Oren Kennedy
418 N. Fairview
Lansing MI 48912

Mr. John Forren, U.S. EPA (3EA30)
1650 Arch Street
Philadelphia PA 19103

Dear Mr. Forren,

I am writing in opposition to the Action Alternatives that are proposed within the Draft Environmental Impact Statement on Appalachian Mountaintop Mining/Valley Fill permitting. I further support the No Action option for this study, or modifications for Action Alternative 1.

As listed in the Federal Register, the reason for this document was "to prepare an Environmental Impact Statement to Consider Policies, Guidance, and Processes to Minimize the Environmental Impacts of Mountaintop Mining and Valley Fills in the Appalachian Coalfields." I feel that the Action Alternatives that are proposed within the DEIS do not make a serious attempt for the minimization of environmental impacts. Rather than an attempt at impact minimization, the document stresses the needs for permit expediency for industry.

I understand that some definitions of terms do need to be standardized between the EPA, ACOE, and OSM. However, I feel that this should largely be between the EPA and ACOE, as traditionally done with 404 permitting, with OSM to be a following agency and accept the agreed upon definitions and metrics decided by the EPA and ACOE. It is my understanding that there are definitions for acceptable fills, and biometrics under progress on the delineation of headwater streams which would be useful for definition standardization. The workshop on "The Value of Headwater Streams" noted on the EPA website seems to be an example of work in progress. The Draft EIS shows a disturbing proposal to transfer a large portion of the definition of terms to those utilized and proposed by OSM, with OSM taking over as the lead agency for NWP 21 and Individual Permit decision coordination. 1-1

Nationwide permit coverage, in general terms, are for projects with low, routine impacts for which there are a large number of permit applications. For wetland permits, the nationwide coverage is up to 1/2 acre. Under NWP 21, the coverage is for a greater area of impact. In the Executive Summary of the DEIS, it is stated that the actual numbers of permits for NW coverage has actually been decreasing. If the number of permit applications is decreasing, why does the DEIS propose that the process be made easier for industry? Industry is very aware of the coverage for NWP 21 - is it in the best interests of "minimizing impact" to ease the permit system? Furthermore, it should show that the current Individual Permit coverage is not making the permit review process more difficult.

Mitigation for fills within wetlands under 404 permitting is utilized to offset unavoidable impacts. This is usually done within the existing waterbody basin. For MTM/VF permits, I believe that more consideration should be given to 'feasible and prudent alternatives' for the permit proposal before mitigation is decided upon. Furthermore, the very nature of MTM/VF applications means that mitigation within the existing waterbody basin would be very difficult to provide. The DEIS went into depth in the facts that diverse forestation would be proposed for mitigation efforts, but it ignored the basic premises in which mitigation is to be utilized for. 12-1-3

There were positive statements within the DEIS that valley fills can sometimes have wetlands develop on them, and that the fill areas can be also be used for subdivision/land use development. I find these remarks to be irresponsible within a document that is headlined for minimization of environmental impacts.

I urge that the Action Alternatives proposed within the DEIS should be abandoned, and that the agencies involved with MTM/VF permits work 1-1

Sincerely,

Oren Kennedy

Oren Kennedy

copy emailed 1/4/04

REC'D AUG 2 6 2003

August 21, 2003

Mr. John Forren
U. S. EPA
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren

On July 22nd I attended both sessions of the public hearing in Hazard, Ky. regarding Mountaintop Mining. I am proud to say that I support Mountaintop Mining. I was born and raised in Hazard, Ky. My grandfather worked in the mining industry and my dad had a tire dealership that relied on the coal industry. My husband is now self-employed related to the coal industry. He has been a coal miner and owns coal trucks and I work for Pine Branch Coal Sales. I feel that I know enough about coal mining to express my opinion about the advantage of mountaintop mining and disgust at the extremist who oppose it but seem to have no facts. 1-11

My husband has done many different jobs in the mining industry for 25 years. He is very knowledgeable in the blending of coal that is loaded into rail cars and barges to be shipped to power plants. As you know it is very important that the quality meet regulations. My husband has loaded holes for blasting, operated equipment, loaded trains and barges and bought and sold coal and mining equipment. This has afforded us a good living.

My office, a mine office, has two very large windows that look out at green pasture land and a big pond full of fish. I have worked here for 11 plus years. There is always wildlife around the pond whether it is geese or 10 pound turtles. The deer are more plentiful every year. We caution people when driving down Kentucky Highway 28 to watch for deer. It is one of the most beautiful and natural places in Kentucky.

My husband and I chose to build a home close to the Pine Branch Coal Sales operation. I live within walking distance of where there is currently mountaintop mining. I live a five minute drive from where mountaintop mining was turned into a cattle ranch that is used by the University of Kentucky. These opponents talk of the land being deprived of wildlife because of mountaintop mining. I have lived in my house for 12 years and each year there is more wildlife. There are two foxes that come in my yard every evening about dusk. There are deer, raccoons, squirrels and rabbits in my yard daily. There is a pileated woodpecker that is boring holes in my house. We try to scare it away but it comes back. I know some of these extreme environmentalist would rather I leave it alone to peck my house down. I've heard the men on the jobs talk of seeing coyotes, turkeys, bears and elk. We have our own wildlife preserve. It is beautiful. 7-2-2

At the public hearing I heard comments about the flyover festival from the Kentuckians for the commonwealth. I have flown over this area many times and am in awe each time. It is amazing to see the development taking place and development that has taken place. I am 43 years old and have seen much growth. My daughter was born a month after the Hazard ARH Regional Medical Center was open. This is on land that was mined. This is only one of many facilities, businesses and homes in this area that have been built on land that has been developed because of mountaintop mining. We would not have many of the opportunities for economic development had it not been for mountaintop mining. 10-3-2

These opponents talk of the bad quality of our water. The water that comes off the job where I work is filtered over the rocks and is clean when it reaches the streams. It is what people throw and flush into our waterways that are contaminating them.

The coal industry is very good for the economy of eastern Kentucky. The coal companies in eastern Kentucky are very generous to organizations and especially schools. Public education in this area depends on coal severance money and the generosity of the coal companies. 11-4-2

I appreciate that there are agencies that regulate the different industries. There should be. I am asking that we not be so over regulated that we're driven out of business. This is where we want to live and raise a family. Please consider our industry and what it means to this area. Please consider the people that are proud of this industry and what they contribute to it everyday. 11-2-2

Thank you.

Yours truly,

Carol Anne Kilgore

January 2, 2004

REC'D JAN 0 5 2004

John Forren, Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am very concerned about plans by the Bush administration for new exploratory mining projects in Appalachia that will involve mountaintop removal, a form of strip mining in which hundreds of feet are blasted off the tops of mountains, strewing millions of tons of mining debris into nearly valleys, choking forests, and burying hundreds of miles of streams.

By its own assessment in its draft environmental impact statement, the Bush administration acknowledges that this form of mining results in environmental and social harms that are severe and largely irreversible. And yet the draft EIS proposes nothing to restrict the damage that will be done to streams, forests, wildlife, and local economies that depend on the natural resources of the areas that will be affected.

I believe that the coal mining industry and the Bush administration must consider alternatives to mountaintop removals in the quest for new energy reserves. **The widespread, devastating, and permanent effects of this form of strip mining are simply unacceptable.** The environmental impact statement must include measures that will protect the natural resources and communities of Appalachia, such as restrictions on the size and amount of mining rubble that will fill valleys as a result of mountaintop removal. **I urge you to immediately amend the draft EIS to include appropriate protections for the streams, forests, wildlife, and human communities of Appalachia.** 1-5

Sincerely,

Sterling Kinnell

Sterling Kinnell
3705 Anza Way
San Leandro, CA 94578

Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:47 PM -----

Laura A klein <laurakklein@juno.com> 12/31/2003 03:03 PM

To: R3 Mountaintop@EPA
cc:
Subject: mountaintop removal

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I am writing to urge the EPA to limit the harmful practice of mountaintop removal by mining companies. This is a very destructive method, and it is essential that the draft environmental impact statement include ways to protect the environment from the harmful effects of this type of mining. Please amend the EIS immediately to recommend that the Bush adminitration implement strong protections in this area. 1-9

Sincerely,
Laura Klein
1519 Virginia St.
Berkeley, CA 94703
Lauraklein@juno.com

First Name: Jennifer Last Name: Knaggs Letter Date: 1/06/2004
City: Lansing State: MI Zip: 48912

I have seen first hand what happens in a community devestated by mountain top removal. I have seen hills millions of years old flattened, homes and schools turned into turned into parking lots, people terroized out of thier community only for companies to gain mineral rights. The Appalachian people are some of the poorest in the United States, and the richness of their beautiful land is being shoveled into oblivion. They say there will be jobs with the coal companies. I have stood with 10 people inside one monster shovel, 'Big John', with room for at least 40 more ....A shovel like that can crush a mountain and empty a coal seem in a matter of weeks to days. With one person behind the wheel. That does not create "jobs". I have seen streams dried up from the mountain tops thrown into the valley. Wells that give water to peoples' homes, gone empty or polluted. Entire ecosystems sacrificed, so that we have more unclean energy.

They say that these sites will be reconstructed, unless it is seen that they are fit for better uses. "Better Uses" often means a Walmart parking lot, n a small community, damaging their already fragile economy, with low income wages, and money leaving the community to a distant corporation. Or it is "reconstructed", which means importing wildlife that will grow quickly, but will not replenish the soil for future crops or forests. Importing animals that do not belong in that habitat, damaging the ecosystem. Is this a solution? Coal is already inefficient, dirty, and soon to be undependable resource. Coal plants spend millions of dollars trying to rid themselves of the left over radioactive ash created from burning coal into energy. And they still don't spend enough. People and wildlife are still being posioned from their "clean air" practices. Instead of supporting mountain top removal, I highly suggest the financial support of renewable resources, such as wind and solar energy. They are the cleanest and least harmful methods of creating energy. I urge you to not support Mountian Top Removal. It is not a solution to our energy crisises, but a creating more problems. 1-9

REC'D AUG 0 4 2003

455 Cherry Falls Rd.
Webster Springs, WV
26288
July 31, 2003

Mr John Forren
US EPA
(3EA30)
1650 Arch St.
Philadelphia, PA

Dear Mr Forren,

Please do not allow the changes proposed by the Bush administration that would change the Stream Buffer zone rule and speed up permit processing to allow Mountain Top Removal mining and Valley Fills. It has already caused extensive ecological damage to forest and streams. 1-5

Thank you for your time and attention.

Sincerely,
Gerri Kolesar

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"vkranda@qualcomm .com" <vkranda To: R3 Mountaintop@EPA
cc:
01/06/2004 12:24 PM Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

The Bush administration's "preferred alternative" for addressing the enormous problems caused by mountaintop removal mining ignores the administration's OWN studies and proposes weakening existing environmental protections and allowing mountaintop removal and associated valley fills to continue at an accelerated rate. 1-10

Sincerely,

Vanessa Kranda
4675 Bancroft Apt F
San Diego, CA 92116
vkranda@qualcomm.com

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"jfkratzer@juno.c om" <jfkratzer To: R3 Mountaintop@EPA
cc:
01/07/2004 10:24 AM Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

As a supporter of President Bush, I don't normally agree with the views of "Act for Change". However, I am stronly opposed to mountaintop mining. I normally support reasonable human uses of the environment, but the impacts of mountaintop mining are unreasonable. 1-9

Sincerely,

Jud Kratzer
6076 Marsh Rd. Apt. F4
Haslett, PA 48840
jfkratzer@juno.com

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"oaklandis@hotmai
l.com" <oaklandis
cc:
01/06/2004 01:09
PM

To: R3 Mountaintop@EPA

Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Dear Mr. Forren:

The Bush administration has a terrible habit of interpreting information to support its own predetermined agenda. In this latest case it has decided that mounaintop removal for mining purposes should continue, despite the government's own studies indicating the irreversible damage of such a practice.

Please do not accept this short-sighted and terribly destructive agenda. Please amend the draft EIS to recommend restrictions on the scope of mountaintop removals, and elevate protection of wildlife and rural communities to their proper place as the top consideration in any proposed mining operation. 1-7

Sincerely,
Scott Kravitz

Scott Kravitz
2796 Casiano Rd.
Los Angeles, CA 90077
oaklandis@hotmail.com

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:52 PM -----

kruzen
<kruzen@socket.ne
t>
12/22/2003 12:44
PM
Please respond to
kruzen

To: R3 Mountaintop@EPA
cc: Carla Klein <carla.klein@centurytel.net>, Andy Mahler <andy@blueriver.net>, Ken Midkiff <ken.midkiff@sierraclub.org>, Scott Dye <scott.dye@sierraclub.org>

Subject: Mountain top removal

December 22, 2003

Dear Mr. Forren,

Blowing up mountains and filling in vallies to get at the coal as cheap as possible is reprehensible. It is the ultimate in mining destruction, and like Humpty Dumpty, those mountains, vallies and the all the living things that depend on them are gone forever, including human beings. What of CONSERVATION? A penny saved is a penny earned. We've recently purchased a Prius and get 45 mpg average! What if everyone did that? What if everyone upgraded their appliances and light bulbs to be enerry saving??? Maybe we wouldn't have to destroy the beautiful Appalachians in Kentucky and West Virginia! 1-9

The Bush admininstration plan to expand this terrible process is flat out wrong. Put the "protection " in the EPA and deny the expansion of Mountain top removal. If you procede with Bush's plan, you will be irrevocably be destoying our natural heritage just as surely as if a terrorist dove a plain into the Statue of Liberty. You will also be destroying a culture and many communities in the Appalachians. This is NOT your mandate...to destroy...it's to PROTECT! Do your job!!!

Sincerely,

Tom Kruzen, President
Ozark Riverkeeper Network
213 East 3rd St.
Mt. View, Missouri, 65548

Free Web Email & Filter Enhancements.
http://www.freewebemail.com/filtertools/

---- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"keen_2bcrazy@yahoo.com" <keen_2bcrazy
To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining
01/06/2004 11:00 PM

Dear Mr. John Forren, Project Manager,

As we try to move towards less-polluting technologies, this plan is an act that will discourage new industries and provide a subsidy to old ones that the taxpayer will pay the tab for both directly and indirectly through cleanup costs, higher mercury emissions, and other problems. This represents government at its worst and is another example of corporate welfare that makes citizens feel that their government is an enemy of their interests.

Sincerely,

Glenn Kuehne
1611 6th Ave. E.
Alexandria, MN 56308
keen_2bcrazy@yahoo.com

January 3, 2004

Kara Kukovich
3901 N. 13th Street
Arlington
VA 22201

P.O. Box 303
42 Murdock Drive
Unity College
Unity, ME 04988-9502

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103
mountaintop.r3@epa.gov

REC'D JAN 12 2003

Re: Comment on the Draft Programmatic Environmental Impact Statement (Draft EIS) on Mountaintop Coal Mining and Associated Valley Fills.

Dear Mr. Forren:

I am a college freshman and have no direct stake in the issue because I am not from the coal region, and neither do I or my family work in the coal industry. However, I did spend two weeks on an active mountaintop mining site, so I would appreciate your consideration of my comments and insights about the environmental impact of mountaintop mining.

I oppose mountaintop mining because of its adverse impact on the environment. Once the mountain top is removed, it does not "grow back." There are no tress, the soil that took centuries to accumulate and ripen is gone and replaced with barren rock. Not even native species can grow on this rock, so Russian olive and Australian plants have to be imported to tenaciously and perhaps tentatively cling to this tearing at the mountain.

I believe such a drastic altering of the topology also affects the weather of a region. There is nothing there to hold the moisture. At least where the mountain has been sheared, it is barren. I recall one morning observing a dense fog from the mined area. I learned that such moisture escaping from the barren area would have been retained by the forest and its plants before the site was mined. Ironically, where our policy in farming and suburban development is to retain the moisture of an area, here we simply allow it to flush down the valleys or accumulate in the sheared off mountain tops and dry up into the sky. 1-9

Animals and birds certainly do not benefit.

Yes, I have observed birds, in particular, congregating and finding food among the scrubby plants that are trying to keep life alive on a mined site. But how different a habitat they had before the mountain was removed. That birds are back is more a testimony to their ability to survive in a world continually fouled by man.

Safety. I recognize and am thankful that the number of coal miners killed on the job fell from 67 in 2002 to 55 deaths in 2003. And while mountaintop mining may not be as dangerous as deep coal mining, there are other trade offs.

Jobs. It appears that the local residents do not benefit much from the extraction of coal by giant machines that rip off the top of the mountain to get at coal True, in some areas there are coal-fired plants that use the coal, but these are so efficient these days, there are few permanent jobs. A lot of public support for mountaintop mining is based upon a misconception that it will create many jobs. And what happens to the rest of the mountain top that has been leveled? I understand, for example, that 15-25 percent of West Virginia mountains have been leveled for mining. For the most part, what remains is abandoned, unproductive, and does not contribute to the local tax base or general jobs.

Regeneration of the forest. I take exception to the introductory statement on page ES-3 that the "natural succession by trees...was slowed." Slowed? These forests have been taken down to stump many times in the past centuries and were able to regenerate. Previously, you could have stood in the same place Daniel Boone walked and see the same species of trees that had been cut and regrown. Do you truly believe that could happen again? The EIS introductory statements cannot mean that in the same way the forest can be what it was before. The forest is not able to grow back the same way it did in past eras. It is different this time around. There is no SOIL on which to grow. There is not the natural flow of waters that would be held by the soil that is now gone. This is simply not some problem that can be managed by some forestry plan. This is not some "cap" that you take off and put back ("recovery efforts") which is the impression that some pro-mining interests make. Everything that was the forest is gone. It is no more. 7-5-4

We all live downstream. The page ES-4 statistic is that only ...("1.2% of streams) were covered by valley fills from 1985 to 2001." This statement minimizes the overall effect of valley fills. A total of 6,800 fills sounds like a lot of affected communities to me. In hollers where the sun is shaded much of the day because of the steepness of the mountains, it does not take much in the way of valley fills to accentuate the effect of unimpeded water to those downstream. I am mindful that it is the mountaintop that is being taken away, so that water flows faster and quicker right from the beginning. 10-2-4

Macroinvertibrates. Before I went to college, I was a stream monitor in my home neighborhood. I understand well how the smallest changes can affect those insect harbingers of an unhealthy stream. In Virginia, for example, you can still see the changes in the river bank that were wrought by English colonial traders in the 1600s when they altered rivers (and the affected streams) to access the cotton offloading sites. We look for the tiniest of eddies and current changes in feeder streams to find the macroinvertibrates that tell us about the health of the stream. I can only imagine what the whoosh of a spring rain does in an area that has been suddenly in-filled as a part of mountaintop mining. It's probably all gone. I doubt that there is any life left.

"Require reclamation with trees as the post mining land use." (Page ES-8) I am very interested in how this can be done. Does this mean make it the way it was before? Do you truck in tons and tons of forest loam of the kind that is wastefully pushed over into the valleys along with the trees in the first place? And where would you get the soil in which to plant the new trees? Does not that imply that you would have to dig up some other pristine place to find the very same kind of soil in which the trees grew before mountaintop mining was begun? So, now TWO places would be befouled? 19-2-4

I appreciate all the studies and work that has been done to date to document the effect mountaintop mining has on the environment. In fact, the studies show that considerable damage has been done. The result should be that we reduce the occurrence of mountaintop mining.

I do not believe that it should be continued until all the mountain tops are gone. The EIS does not go far enough in requiring protections for valley fills, it does not really save the habitats for all categories of animals, and it does not mitigate damage to the water system created by mountaintop mining, in my view. The EIS is a start. It should not be considered our society's approval to continue mountaintop mining as we do today. 1-9

Thank you,

Kara Kukovich

Kara L. Kukovich

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:39 AM -----

Kenneth Kukovich
<kukovichlockhart@mind spring.com>
To: R3 Mountaintop@EPA
cc:
Subject: Kenneth M. Kukovich Comment on Mountaintop Mining EIS
01/04/2004 11:46 PM
Please respond to
kukovichlockhart

<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />
Kenneth M. Kukovich
<?xml:namespace prefix = st1 ns = "urn:schemas-microsoft-com:office:smarttags" />3901 N. 13th Street
Arlington, VA 22201
H: (703) 525-8592
kukovichlockhart@mindspring.com

January 4, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103
mountaintop.r3@epa.gov

Re: Comment on the Draft Programmatic Environmental Impact Statement (Draft EIS)
on Mountaintop Coal Mining and Associated Valley Fills.

Dear Mr. Forren:

I have had the experience of being on a mountaintop mining site for two continuous weeks. I believe my observations and comments may be of value in your review of the EIS.

My general comment is that extraction of coal by mountaintop mining is a net loss. The energy we gain is at the expense the destruction of the habitat, the interruption of natural water flows and purification, and the sheer change in the topography and geology of an area. 9-2-2

The habitat is forever changed. The forest and its soil that is scraped off the mountain is not the same despite the "restoration" that is made after the coal is taken out. I realize that these are private lands. However, we are all stewards of the earth, and this extreme method of extraction in some of our most valuable areas of biodiversity is something for which our next generations will not forgive us. 7-5-2

The EIS studies have documented but I believe minimized the danger to water supplies. A restored mountaintop mine site initially looks as manicured as a golf course. The rip- rapped new drainage paths, and the holding ponds appear to set the foundation for water to begin its path to the ocean. Of course, there is nothing like the forest into which such rain fell where it was purified by the layers of sediments and rocks built up over centuries. I understand that elsewhere in the country we are seeking areas of farmland and natural marshland to naturally purify the water instead of using chemicals and mechanical means to cleanse our water. So why do we allow a functioning ecosystem to be destroyed in the case of mountaintop mining? 5-1-2

Finally, I heard it said, and read by mountaintop mining advocates, that such "leveling" of the mountains is actually a good thing, that it will bring jobs and create opportunity for those who have not had it because of the mountains. It would seem a reasonable proposal, then, that mountaintop mining be halted until all of the currently cleared-off mountains are full of fair-paying permanent jobs by environmentally and economically sustainable industries.

Sincerely,

Kenneth M. Kukovich

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"jalefra@lanset.c
om" <jalefra To: R3 Mountaintop@EPA
cc:
01/06/2004 02:57 Subject: Please Stop Destructive Mountaintop Removal
Mining
PM

Dear Mr. John Forren, Project Manager,

Please stop the destruction of mountaintop removal mining. | 1-9

Sincerely,

John L
(address withheld)
(address withheld), CA 00000
jalefra@lanset.com

----- Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:49 PM -----

Alexandra Lamb
<gwrenn@ucla.edu> To: R3 Mountaintop@EPA
cc:
01/06/2004 10:33 AM Subject: Mountaintop Mining/Valley Fill DEIS

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

I would like to comment on the Draft programmatic Environmental Impact Statement (Draft EIS) on mountaintop coal mining and associated valley fills in Appalachia released by the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, U.S. Office of Surface Mining, and West Virginia Department of Environmental Protection.

The Draft EIS confirms that mountaintop coal mining and valley fills in Appalachia have caused massive, irreparable environmental damage, including the destruction or degradation of approximately 1200 miles of headwater streams and hundreds of square miles of forest.

Despite this devastation caused by mountaintop coal mining, the preferred alternative (Alternative 2) would undermine existing environmental protections and permit the destruction of an additional 350 square miles of mountains, streams, and forests. Furthermore, it is inaccurate and misleading to describe the replacement of native hardwood forests, which are biologically diverse and offer critical wildlife habitat, with grassland plateaus or replanted hardwood forest as "reclamation." | 1-10

I also strongly disagree with the Draft EIS claim that the preferred alternative "would support efficient, environmentally responsible production of energy resources." It is an abhorrent waste of our nation's natural resources to mine coal by blowing up mountains and burying entire streams and valleys in waste. The EPA is wrong to support – at any cost – coal power, which produces more air pollution and contributes more toward global warming that any other electricity source, rather than promoting energy conservation and efficiency and renewable energy sources. I expect the federal government to conserve our natural resources and to promote responsible stewardship of the environment. | 1-9

I urge the EPA to amend the Draft EIS to protect Appalachia's natural resources.

Thank you.

Sincerely,
Alexandra Lamb
13250 Chandler Boulevard
Sherman Oaks, CA 91401

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:30 AM -----

"Lamb, Sloane T." <LambST@bernstein .com> 01/06/2004 12:04 PM

To: R3 Mountaintop@EPA

cc: senator@wyden.senate.gov, oregon@gsmith.senate.gov, write.earl@mail.house.gov

Subject: Draft EIS mountaintop coal mining

Mr. John Forren
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (EIS) on mountaintop coal mining and associated valley fills in Appalachia.

Mountaintop coal mining and valley fills have caused widespread and permanent damage to the Appalachian environment, as is made evident in the Draft EIS. Such activities have led to the degradation or destruction of vast stretches of forest and more than 1000 miles of headwater streams, imperiled wildlife, and destroyed communities. 1-9

The preferred alternative in the Draft EIS would, among other things, eliminate the surface mining rule that makes it illegal to disturb areas within 100 feet of streams unless it can be demonstrated that they will be harmed. This not only enables the mining companies to obtain permits that can result in serious destruction too easily, but it removes the onus of protecting our environment from the EPA, where it belongs. 1-10

Our country's natural resources are not limited to coal and natural gas. Indeed, our country counts among its natural resources the very habitat being irrevocably damaged by these obscene practices by the coal-mining industry. The EPA should not condone the destruction of additional habitat--mountains, forests and streams--at the expense of furthering the production of coal power, an industry that contributes more toward air pollution than any other source of electricity. Instead, your agency should be promoting energy conservation and efficient and renewable energy sources.

I therefore urge the EPA to amend the Draft EIS.

Thank you.

Sincerely,
Sloane T. Lamb
2835 NE 27th Avenue
Portland, OR 97212

Sloane T. Lamb
Global Marketing and Communications
AllianceBernstein Institutional Investment Management
A Unit of Alliance Capital, L.P.
www.institutional.alliancebernstein.com
Bus.: 503-493-4301
Fax: 415-217-8111
lambst@bernstein.com

The information contained in this transmission may contain privileged and confidential information and is intended only for the use of the person(s) named above. If you are not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, any review, dissemination, distribution or duplication of this communication is strictly prohibited. If you are not the intended recipient, please contact the sender immediately by reply e-mail and destroy all copies of the original message. Please note that we do not accept account orders and/or instructions by e-mail, and therefore will not be responsible for carrying out such orders and/or instructions.

Melissa Lambert
West Virginia Wesleyan College
59 College Avenue
Buckhannon, WV 26201

31 October 2003

US EPA (3ES30)
c/o Mr. John Forren
1650 Arch Street
Philadelphia, PA 19130

Dear Mr. Forren:

I am writing in regards to the current Environmental Impact Statement on mountain top removal mining and valley fills. According to this statement, current and future mining operations could potentially result in the loss of 1,500 acres of forest. It also states that "...scientists have found little evidence to support coal industry claims that modern reclamation can bring new life to land that is flattened by mountaintop removal." From 1985 to 2001, mountaintop removal operations buried 724 miles of Central Appalachian streams. Overall, however, 1,200 miles of streams have been impacted by valley fills. This harms aquatic life downstream from these fills and produces Selenium in these same streams. At the current rate of mountaintop removal operations, 2,200 miles of Appalachian forests will be lost by 2012. All this information comes straight from the EIS. 1-9

However, even though this report catalogues both the devastation already incurred and the threat ongoing mountaintop removal operations pose to Appalachian streams, forests, and aquatic life, it does not advise against its practice. Inconsistent with its own findings, the recommendations included in the EIS illustrate blatant disregard to the documented devastation of mountaintop removal mining and valley fills. Also, absent from this document, but equally devastating, is the impact of mountaintop removal mining on communities adjacent to these operations. Blasting, valley fills, persistent flooding, and forced displacement, among other factors, continues to plague coalfield communities. Not only is mountaintop removal permanently altering West Virginia's environment, it is permanently depopulating many coalfield towns.

In conclusion, based on the previously stated reasons, the current EIS is simply unacceptable. I demand, as a resident of West Virginia, that the EPA draft environmental policies that reflect – rather than ignore – its own findings on mountaintop removal's environmental damage in our state. We can do better than this. 4-2

Thank you for your time and consideration.

Sincerely,

Melissa Lambert

Melissa Lambert

18 oct 03
203 Washington St
Sey Ky 40503

John Forren
US EPA (3ES30)
1650 Arch St
Philadelphia, PA 19103

Dear Mr. Forren,

I oppose mountaintop removal and valley fills and any change in the buffer zone rules. 1-9

I'm disappointed and angry that the federal government ignored the same studies when it proposed weakening, rather than strengthening, protections for people and the environment. 1-10

Thank you.

Denise Lamobaw

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

"djmclancaster@cox.net" <djmclancaster
To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining
01/06/2004 03:03 PM

Dear Mr. John Forren, Project Manager,

I grew up in West Virginia. There is no more beautiful state. My father ran many of the mines in West Virginia and Kentucky. I strongly urge you to amend the EPA's draft environmental impact statement so as to stop mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

The Bush administration must consider alternatives that stop the mountaintop removal mining and then implement measures to protect natural resources and communities in Appalachia. No amount of coal is worth the destruction of streams, forests, wildlife and communities. I urge you to immediately amend the draft EIS accordingly.

Sincerely,

Jackie McQuade Lancaster

Jackie Lancaster
339 East J Street
Chula Vista, CA 91910
djmclancaster@cox.net

----- Forwarded by David Rider/R3/USEPA/US on 01/09/2004 02:49 PM -----

Susan Lander <sueland@ccountry.com>
To: R3 Mountaintop@EPA
cc:
Subject: Amend EPA environmental impact statement
01/01/2004 11:58 AM

I am dismayed by the plans to continue to allow mining practices in Appalachia which would level mountain tops, and do serious damage to forests, streams, and communities.

According to the draft EIS, the environmental effects of mountaintop removal are both severely damaging and permanent. Despite this, there seem to be no protections for either the natural resources (forests, wildlife, streams) or for the communities that depend on these resources. 1-9

Worst of all, the "preferred alternative" for dealing with the massive problems posed by mountain top removal mining ignores the administration's own studies!

I urge you to turn to alternatives that protect natural resources and communities on Appalachia.

Susan Lander
Ashland, Oregon

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 0 2 2004

Mr. John Forren,

I am writing to you, in defense of our precious environment. I will start by saying I have never written so many environmental defense letters, as I have since Bush, Jr. took office. Daily I find myself wondering why this administration favors corporations over our environment, our future, our children's health and our own. Is money that precious? How precious will it be when all of our natural resources, our clean rivers, our clean air - are gone? I have learned one thing above all else while growing into an adult: Even if all material things are taken from you, and you still have your family, friends and life - then all is good because none of those material things were important; for they can be replaced. Our children cannot be replaced, our family cannot be replaced, and our mountains cannot be replaced.

I am opposed to mountaintop removal mining and valley fills of any kind. How dare our government allow corporations come into our forests, our wilderness' homes and diminish what little natural haven we have left in this world! What we need is an alternative energy policy, not a more consuming energy policy like that of which Bush would like passed. More coal, more oil, more pollution, more chemical agents in the rivers and streams is what is happening with these 'Bush Policies' - don't we have enough polluters already? The fish in the Ohio are already labeled as unhealthy to eat, where we obtain our water - yet more development and energy sources are being planned. If we keep dumping more pollutants into these streams, and adding to the air pollution through coal and oil exploration, then what we have is a future health disaster on our hands. Is that what our government wants to happen to the American people? We already cannot face rising health care costs and our government will not give us national healthcare like the many other industrialized nations of the world. 1-9

Therefore, we are looking at disease, deformation, brain dysfunctions, bleak skies and blank futures - all over money and corporate power, because we cannot get enough - if this is allowed to keep happening. It is never enough is it? Tell you what... If you stop the mining, I will talk to the people about being conservative and controlling the population. I personally could care less if we did run out of fuel and energy, because it has caused chaos, war, violence, greed and hate. I do not need any of those effects, nor do our children. If we run out, we run out. Maybe if government concentrated on educating people on the effects they are having on the environment, instead of removing our environment to make more money off people - we would not have these problems. Instead, this could be a letter of appreciation for looking out for our environment and saving it from corporate destruction. I hope that in the near future I will have the opportunity to write such a nice note to you.

Page 1 of 2 JL 12/28/2003

REC'D JAN 0 2 2004

Furthermore, I do not support Alternatives #1, 2 or 3 contained within the EIS report. None of these options will protect our water or our communities. The only alternative to protect our water, wilderness and communities is to stop the mining and mountain removal. Enough is enough and the people, environment and future of America have a word on this issue. We have spoken. We hope our government will hear us. 1-5

Thank you for your attention. Please read a short summation of sustainability for our future at http://www.isosconference.org.au/papers/Sanders.pdf

Sincerely,

Jennifer Lantz

Jennifer Lantz
7050 Bronner Circle
Louisville, KY 40218

"Only when the last tree has died and the last river has been poisoned and the last fish has been caught...will we realize that we can not eat money." ~ Native American proverb

Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:18 AM -----

jennifer.lantz@insightbb.com To: R3 Mountaintop@EPA
cc:
12/28/2003 09:39 PM Subject: Just Say No To Mountain Top Removal

John Forren<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />
<?xml:namespace prefix = st1 ns = "urn:schemas-microsoft-com:office:smarttags" />U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

December 28, 2003

Mr. John Forren,

I am writing to you, in defense of our precious environment. I will start by saying I have never written so many environmental defense letters, as I have since Bush, Jr. took office. Daily I find myself wondering why this administration favors corporations over our environment, our future, our children's health and our own. Is money that precious? How precious will it be when all of our natural resources, our clean rivers, our clean air - are gone? I have learned one thing above all else while growing into an adult: Even if all material things are taken from you, and you still have your family, friends and life

- then all is good because none of those material things were important; for they can be replaced. Our children cannot be replaced, our family cannot be replaced, and our mountains cannot be replaced.

I am opposed to mountaintop removal mining and valley fills of any kind. How dare our government allow corporations come into our forests, our wilderness' homes and diminish what little natural haven we have left in this world! What we need is an alternative energy policy, not a more consuming energy policy like that of which Bush would like passed. More coal, more oil, more pollution, more chemical agents in the rivers and streams is what is happening with these 'Bush Policies' - don't we have enough polluters already? The fish in the Ohio are already labeled as unhealthy to eat, where we obtain our water – yet more development and energy sources are being planned. If we keep dumping more pollutants into these streams, and adding to the air pollution through coal and oil exploration, then what we have is a future health disaster on our hands. Is that what our government wants to happen to the American people? We already cannot face rising health care costs and our government will not give us national healthcare like the many other industrialized nations of the world. 1-9

Therefore, we are looking at disease, deformation, brain dysfunctions, bleak skies and blank futures - all over money and corporate power, because we cannot get enough - if this is allowed to keep happening. It is never enough is it? Tell you what… If you stop the mining, I will talk to the people about being conservative and controlling the population. I personally could care less if we did run out of fuel and energy, because it has caused chaos, war, violence, greed and hate. I do not need any of those effects, nor do our children. If we run out, we run out. Maybe if government concentrated on educating people on the effects they are having on the environment, instead of removing our environment to make more money off people – we would not have these problems. Instead, this could be a letter of appreciation for looking out for our environment and saving it from corporate destruction. I hope that in the near future I will have the opportunity to write such a nice note to you.

Furthermore, I do not support Alternatives #1, 2 or 3 contained within the EIS report. None of these options will protect our water or our communities. The only alternative to protect our water, wilderness and communities is to stop the mining and mountain removal. Enough is enough and the people, environment and future of America have a word on this issue. We have spoken. We hope our government will hear us. 1-5

Thank you for your attention. Please read a short summation of sustainability for our future at http://www.isosconference.org.au/papers/Sanders.pdf

Sincerely,

Jennifer Lantz
7050 Bronner Circle
Louisville, KY 40218

"Only when the last tree has died and the last river has been poisoned and the last fish has been caught…will we realize that we can not eat money." ~ Native American proverb

Peace on Earth,
Jennifer Lantz

Does America need a change?
Recycle for a change.
Take action for a change.
Vote Kucinich for a change.
Change only happens thru individual participation.

7/24/03

To Whom It May Concern:

Please recognize the fact that there are groups of people today whose sole purpose is to halt all types of mining, by whatever means necessary.

I believe that the current regulations on the mining industry have improved the environment significantly in my lifetime. Significantly additional restrictive regulations would serve to finish off an already economically weak and vulnerable coal industry in WV. 1-12

The key is to have moderate, incremental regulation, not radical & impractical to implement.

"Don't kill the goose that is laying the golden egg!"

Thank You!

872-6071

Tim Larrick
Summersville, WV

First Name: Jessica Last Name: Lavin Letter Date: 1/13/2004
City: Harpswell State: ME Zip: 04079

This past November I had the opportunity to attend a week long training session for those who work to create social change. On the 10 hour drive with one of my colleagues we discussed many issues facing our environment today. We talked about the health and air issues associated with US electronic waste being shipped to Asia, we talked about the war in Iraq, about globalization and free trade, but the most interesting thing we talked about was my colleagues work to stop the destructive coal mining practice of mountain top removal. He told me about living in Appalachia with some families who's health, livelihood, home towns and pristine surroundings were being threatened by coal companies. My reaction --"Coal companies still do that in the United States!" Of course, my co-worker couldn't believe, I had never heard of such acts. I guess I had been living in my isolated part of the US for way too long. As the week progressed, I met more and more people who worked to improve the lives of others through securing low income housing in the inner citys of Philadelphia, chasing drug dealers and prostietutes of the corners of thier streets in Camden New Jersey, fighting AIDS in impoverished countries. And ~ still the story that struck my heart was the simple fact that even in the US we still allow coal companies to permanently devestate our people and our environment. The US is one of the most sophisticated countries in the world? At the end of the week the message I took away was there is still opportunities for us to create change in society, it may not happen fast, but if all do our part we can make a difference. It's your turn to do the right thing! Stop allowing coal companies to destroy our nations soil and threaten the health of many people. Instead of allowing mountaintop removal to continue and in many cases increase, implement alternative measures! - You CAN reduce stream and forest loss by placing strong restrictions on the size of valley fills. - You CAN implement measures that require evaluating alternatives for individual projects. - You CAN implement measures that require evaluating regional alternatives so that the cumulative impact of the destruction caused by mountaintop removal is addressed. For the sake of Appalachian men, women and children, thier heritage and our environment PLEASE stop this devastating act! Wouldn't Appalachia be a great place for windmills? 1-9

December 18, 2003

REC'D DEC 24 2003

John Forren
US Environmental Protection Agency
1650 Arch Street
Philadelphia, PA
19103

Dear Mr. Forren,

I oppose any changes that would weaken laws and regulations that protect clean water in the state of West Virginia. I oppose elimination of the stream buffer zone that prohibits mining activity within 100 feet of streams. 1-10

We must adhere to improving environmental protection to aquatic and terrestrial ecosystems. We must also eradicate the widespread and irreversible damage the coal industry is doing to Appalachia, and the once beautiful mountains of West Virginia. 9-2-2

The EIS draft must not be approved or accepted. 4-2

Sincerely yours,

Phyllis H. Law

Phyllis H. Law
137 Loretta Avenue
Follansbee, WV 26037
304-527-1522

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

Carey Lea <woodsmoke19@yahoo.com> 12/25/2003 10:27 AM
To: R3 Mountaintop@EPA
cc:
Subject:

Dear Mr.Forren

I am writing to tell you that I am opposed to mountaintop removal coal mining.I think the practice and its results speak for themselves-unemployment,environmental destruction,and the destruction of local communities.Of course the industry has its own self-serving rosy scenario,but for those of us who live in the area,the rosy scenario is laughable.I urge you to consider the will of the people,not the industry. 1-9

Sincerely,
F.Carey Lea
353 Groundhog Ridge
Spencer,WV 25276

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"eleach@brainerd.net" <eleach 01/06/2004 03:24 PM

To: R3 Mountaintop@EPA

cc:

Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I have made numerous s trips through Appalachia and have seen the damage to the environment and living conditions caused by harmful coal mining.

Therefore,I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-5

The Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia.

Sincerely,

Elaine Leach
8175 County 78
Lake Shore, MN 56468
eleach@brainerd.net

DeliveredDate: 01/13/2004 01:52:12 AM

Carole Levenson
492 Staten Avenue #1103
Oakland, CA 94610

January 13, 2004

John Forren
US EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Forren:

Dear Sir,

I think that it is reprehensible that the EPA could even consider that the removal of mountain tops and deposition thereof into stream beds is in any way ecological and not in violation of our existing environmental laws. 1-9

Sincerely,

Carole S. Levenson

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"textract@attbi.c
om" <textract To: R3 Mountaintop@EPA
cc:
01/06/2004 05:21 Subject: Please Stop Destructive Mountaintop Removal Mining
PM

Dear Mr. John Forren, Project Manager,

I am against any more mountaintop mining. It's known that this type of mining--which dumps tons of waste into the valleys below--is destructive.

The EPA should do whatever is in its power, including changing the current draft environmental impact statement, to make clear that mountaintop mining is too harmful to be allowed. 1-9

Sincerely,

Igal Levy
1020 Willow Drive
Lafayette, CA 94549
textract@attbi.com

853 S. Walnut
Van Wert, O. 45891

A note from Mrs. Howard Lewis

Dear Mr Forren, Dec. 26, 2003

Please do not weaken environmental protection for the devastating practice of mountain top mining! A strip mining that is ugly in the extreme as well as destroying the valleys and streams the rubble is dumped into!

Sincerely,
Elizabeth Lewis
family and friends.

REC'D

1-10

REC'D JUL 2 5 2003

Norma Lewis
Lincoln WV 25508
July 20, 2003

Dear EPA,

The EIS does not evaluate alternatives to valley fills, it should. 1-8

Other uses for the rock need to be considered. Economic development plans should have as a main focus -- how to capitalize on another one of West Virginia's resources- sandstone. Other parts of the country mine sandstone. Glass manufacturers should be encouraged to build plants where the sandstone has already been mined for them. Block and stone siding companies should be encouraged to build factories in areas where they can use the rocks that otherwise would have turned into valley fill. 10-3-5

The streams and the mountain valley micro habitats are irretrievably lost when valley fills are constructed. This is an irretrievable and irreversible impact. The mitigation should be that the coal companies must develop markets, pay into a fund, or somehow encourage businesses that use the stone (block manufacturers, stone siding companies, manufactured stone products, glass manufacturers). China is a large stone manufacturer. Instead of importing these products from China, the US government should subsidize companies that produce products with coal mining overburden. If there was both a federal subsidy and a coal company fund, then there could be an attractive business opportunity. 9-5-3

Yes, this would require a different type of thinking. It appears to be a radical concept. All industrial innovations seem far- fetched when first proposed. Who would have thought that chemical companies could successfully use product substitution or sell their hazardous waste? It is part of everyday practice now but it was not twenty years ago. Please do not dismiss this concept as a weird public comment. Please try to circulate the idea and see how it could be studied and implemented.

Norma Lewis

January 19, 2004

REC'D JAN 2 3 2004

U.S. EPA
Attn: John Forren
1650 Arch Street
Philadelphia, PA 19103

Mr. John Forren
U.S. EPA (3EA30)

Dear Mr. Forren,

Please reduce the harmful effects of mountaintop removal coal mining to protect natural resources and communities and do not weaken environmental protections that apply to the companies that are conducting mountaintop removal.

The draft Environmental Impact Statement (EIS) on mountaintop removal should be rewritten to recommend limits on the size of valley fills that bury streams and imperil wildlife. 1-10

The draft Environmental Impact Statement should not do away with a surface mining rule that makes it illegal for mining activities to disturb areas within 100 feet of streams.

Sincerely,

Tom Lewis

Tom Lewis
356 Fisher Rd
Grosse Pointe Farms, MI 48230

---

bettaleyl@excite.com To: R3 Mountaintop@EPA
cc:
01/05/2004 04:20 PM Subject: Comments on draft programmatic EIS on mountaintop removal coal mining

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities.

THIS IS A RAPE OF OUR COUNTRY BY THE PRESENT ADMINISTRATION. 1-9

IT SEEMS THAT EVERYTHING THEY DO IS GEARED TOWARD TURNING THIS COUNTRY INTO A SERFDOM, RULED BY A SELECT FEW.

I HAVE GRANDCHILDREN AND GREAT-GRANDCHILDREN, AND I WILL NOT LET THIS HAPPEN.

Sincerely,

Betta Leyland
65 Franklin Drive
Doylestown
Ohio, Ohio 44230

cc:
Representative Ralph Regula
Senator George Voinovich
Senator Mike DeWine

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 0 5 2004

Subject: Draft EIS on mountaintop removal coal mining

12/31/03

Dear Mr. Forren,

I am writing regarding the EPA's draft environmental impact statement on mountaintop removal mining. From my understanding of this practice and the findings of the draft EIS, I believe that mountaintop removal mining creates unacceptable hazards to human health and the environment. 1-9

As such, I do not believe that the Bush administration should advance plans to allow this mining practice, which can level mountaintops, wipe out forests, bury streams and displace communities. Rather, at a minimum, I believe the draft EIS should be strengthened to effect proper restrictions on the size of valley fills and the number of acres of forest that can be destroyed/stripped, and to ensure protection of streams and associated flora and fauna which can be damaged or destroyed by the mountaintop mining removal and fill practice. 1-5

I do not favor the Bush administration's "preferred alternative", which actually weakens environmental protections for human health and the environment by allowing mountaintop removal and associated valley fills to continue at an accelerated rate. Please ensure that the Bush administration is held to the high standard they espouse in the popular media, and earnestly and honestly consider (and implement) alternatives that reduce the environmental impacts of mountaintop removal, in a way that protects America's natural resources and the Appalachian communities where this damaging approach to mining is practiced (and proposed to be expanded). 1-10

Thank you for your time in considering my concerns and the concerns of the American people regarding the sensitive issue of protecting human health and the environment.

With kind regards,

Eric Lillyblad
9505 207th St. N.
Forest Lake, MN 55025-8903
clillyblad@aol.com

REC'D DEC 17 2003

Mr. John Forren
U.S. EPA
1650 Arch St.
Philadelphia, PA 19103
Email- mountaintop.r3@epa.gov

I oppose the practice of mountaintop removal mining. This mining is destroying our communities, homes and lives. We are constantly flooded, in homes that we have spent our lives in. We are being pushed out of our homes by the destruction caused by mountaintop removal mining. Our roads are being shut down ever time it rains this makes our rescue personal useless to us. Our tax dollars are what fixes all the mess caused by the mining going on around us. No wonder mining is so profitable we as citizens pick up the bill on the devastation caused by the mine companies. Please stop this insanity its killing out entire communities. Not to mention the effects it's having on our environment. The habitats of our animals are destroyed, running the wildlife away. Our streams are filled with rock that the mine companies pile into these valley fills. The waters get up and have no where to go but into peoples homes. Our mountains are exploding with water. These outbreaks come out into people's yard and underneath their homes. Our homes are literally being blasted off their foundations or the earth is opening up and swallowing them. Please stop the practice of mountaintop removal coal mining and save our homeland, our children's future and very possibly our lives 1-9

Name Ms. Joan V. Linville
Address P.O. Box 143
231 Eastwood Lane
Van, W.V. 25206
Phone (304) 245-8229
Email JVLINVILLE@KVINET.COM - NO CAPS

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:39 AM -----

"Linville, Joe"
<jlinville@walker -cat.com>
01/06/2004 03:48 PM

To: R3 Mountaintop@EPA
cc:
Subject: Comment on Mountaintop Mining -- Draft EIS

Greetings,
<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />
As a life long resident of southern West Virginia I would like to make a comment regarding the regulations the EPA Draft EIS on mountaintop mining.

First and foremost, COAL is West Virginia. Without COAL, the State of West Virginia would be economically depressed. 11-4-2

The good Lord above has provided us with an abundance of natural resources and he has blessed our region with COAL, so therefore I feel we can find a happy medium for all parties involved.

COAL is very vital and I am wondering if you can put a price tag on the economic impact this natural resource has on our state. The coal industry employees thousands of men and women in our state and what would happen to those jobs if stringent regulations were put into place, that forced mining companies out of business? Not only would miners loose their jobs, but the thousands of support jobs as well. 11-1-2

Bottom line I feel with good regulations, coal companies can mine the coal effectively and feasibly, provide West Virginian's with good paying jobs, provide a good tax base for the state and continue to help balance the environment.

I feel reclamation is a major factor in this equation. I have had the opportunity to see first hand many 'mountaintop removal' mine sites, before, during and after the fact. Yes, there is no doubt that during the mining process, the land is not one of the prettiest sights, but neither is the construction of a local highway or a neighborhood shopping mall. However the finished product is different story. 19-1-2

I hope the out come of this process is in the best interest of all the people.

Sincerely,

William J. Linville, II
698 Lick Creek Road

Danville, WV 25053

Joe Linville
Standard Job Administrator
C.I. Walker Machinery Co.
(304) 949-6400 x2283
jlinville@walker-cat.com

101 11th St.
John Forren,
To whom this May Concern:
I am a resident of Van Buren County, WV and I oppose Mountaintop removal
Mr. Forren the 2003 action
Many years did in Coming the
Mr. Forren did in Coming the
Creek will Commenting my Creek
Creek to Come in Springs
mud and water or the marshes of
my Street, porch
Some Lifted with the upper
of Climbing up and Hiking Anyone
We do have experiencing the
Problem occurred again on WV.
Rd. and again on the 10th
I have other also a lot of water
that has under my Street Coming
Downcome what he Harmful
to my health due to increasing
and other respiratory problems.
After feel Good Can I am
now having to pay out of my

1-9

17-2-2

Can income, please, for Allow up
and Appreciate
That I go to bed at night
I don't know what I will wake up
to and if I'll ever Recover if
I at Photo or again. Even if
I have my home I always fear
that the rain will come and my
home will be destroyed.
Living Down Here over 55 years
and Now never had this problem
with the Hillside sliding in.
Something needs to be done
to stop this problem.
Sincerely
Mrs Nannie V. Linville
JVL

17-2-2

REC'D DEC 1 2003

CURT A. LIVINGSTON, SR.
~~[illegible]~~ P.O. Box 1503
DENNISPORT, MA 02639

12/18/03

Mr. John Forren
U.S. EPA (3EA 30)
1650 Arch St.
Philadelphia, Pa. 19103

REC'D DEC 24 2003

Dear Mr. Forren:

This is to express my deep concern for the practice of mountain top removal to access coal in the Appalachian Mountains. The long awaited release (May 29, 2003) of the Environmental Impact Statement (EIS) does not adequately address how to reduce the environmental harm done to the valleys or water quality degradation caused by the action. 4-2

Please do not weaken the environmental regulations for this devastating activity. These regulations have withstood the test of time. 1-10

These were beautiful areas.

Sincerely,
Curt A. Livingston, Sr.

----- Forwarded by David Rider/R3/USEPA/US on 01/09/2004 02:49 PM -----

jlp <jlp@smgazette.com> To: R3 Mountaintop@EPA
cc:
Subject: Mountaintop removal for coal mining
12/30/2003 07:26 PM

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103
Email: mountaintop.r3@epa.gov
Dear Mr. Forren,

I understand that the EPA's draft environmental impact statement proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife and no safeguards for the communities that depend on the region's natural resources for themselves and future generations. Yet according to the draft EIS the Bush administration has released, the environmental effects of mountaintop removal are widespread, devastating and permanent. The social effects to the people and their communities are also negative, particularly in the long term.

According to the information I have read President Bush's administration will ignore their own studies and propose weakening existing environmental protections and allowing mountaintop removal and associated valley fills to continue. Alternatives that reduce the environmental impacts of mountaintop removal would seem to make more sense for the future of the human and wildlife communities of Appalachia, the companies that harvest this natural resource, and the American people. For these reasons I would urge you to consider amending the draft EIS with proposals for restricting the negative impacts of this type of mining. 1-5

Sincerely,

Julie Longman-Pollard
PO Box 577
St. Maries, ID 83861
jlp@smgazette.com

Forwarded by David Rider/R3/USEPA/US on 08/28/03 05:06 PM -----

Sherry Lorenz <sherlorenz@fmtc.net> To: R3 Mountaintop@EPA
cc:
Subject: WVA Mountaintop Removals...
08/24/03 06:36 PM

August 24, 2003

To: The EPA, Region 3
From: Sherry Lorenz, Fort Mill, South Carolina

My name is Sherry Lorenz, I live in Fort Mill, South Carolina, and I am a member of the Henry's Knob Group of the Sierra Club in Rock Hill, SC. I am an avid hiker/backpacker and outdoors enthusiast. I feel best when seeing and hearing the sounds of nature, it is a wonderful respite from the everyday noises and pressures of life, the honking of cars, non-stop music in the stores, telephones, beepers, shrieking ambulances and police cruisers, and many other noise-nuisances that disrupt and burden our daily lives. What more beautiful is there than being able to take a break in the wings of nature and "recuperate" so that we can all take on another week of stress and hardship. However, in *YOUR* State, the State of West Virginia, this birthright is being taken away from its people. They are being terrorized by these horrible mountaintop removals, a practice that is unspeakable to say the least. I have seen pictures and have talked to people who live this nightmare day-in and day-out, people who see nothing but dust when they step out of their homes and look around, total utter destruction and mayhem. You know as well as I know, that many have died as a result of mudslides that are a part of mountaintop removals, many have lost their homes due to damage from the blastings, many were forced to sell their properties for almost nothing, many simply have no place to go and suffer silently, and many have developed health problems they would never have had before these removals started. Yes, I know, I have spoken to people that live in Bob White, WVA and Dorothy, WVA. And yes again, I am aware that the blastings and dumpings known as "valley fill" occurs on private 1-9

coal company land, however, the results extend far beyond it's borders, destroying communities along with the environment. It is nothing but a living nightmare. Already, more than 1,200 miles of headwater streams have been directly impacted by mountaintop removal operations, and 724 of streams have been buried. More than 300,000 acres of hardwood forest have been removed, many of them just buried along with the rock and fill. It's a total environmental disaster. I don't even live in West Virginia, but I am horrified and feel the pain of the people that have to deal with this. I so respect what God has given us to protect, enjoy and cherish, I treat nature like it was a fragile flower. Which it is. We all know that the Bush Administration is promoting and allowing this, however, common sense will tell us that this practice of MTR is totally unacceptable. Is our land free game for just a few of the rich and powerful? Is this democracy? Is this in the best interests of the land and of the people? I know *you* know the answer to this. I am therefore kindly asking you to HELP STOP this insanity. I will be traveling to Bob White, WVA, soon to take pictures of the mined areas and I'll be showing them to my fellow environmentalists here in Rock Hill. I know they will be shocked. 1-9

I hope to hear from you, I would like a response---a response that makes sense and will give hope to me and the people of West Virginia and the surrounding states. I care about our Planet, I care about the future of my children and grandchildren, and what they will inherit, and I also care about the people of West Virginia, Virginia, Tenneessee, Kentucky and other places that are being destructed. Let us all do what's right.

Sincerely yours,
Sherry Lorenz

Sherry Lorenz <sherlorenz@fmtc.net> To: R3 Mountaintop@EPA
cc:
Subject: Re: West Virginia Mountaintop Removals
10/22/03 11:04 AM

Dear EPA, Region 3,

I appreciate your reply, I **needed** to hear from you. When we don't receive a reply from someone we wrote, we all feel like our voice didn't matter after all. I **want** to be heard, because **I CARE** about our Planet. 3-3

Please let me leave you with this:

"Only after the last tree has been cut down,
Only after the last river has been poisoned,
Only after the last fish has been caught,
Only then will you find that money cannot be Eaten."

Cree Indian Prophecy

----- Forwarded by David Rider/R3/USEPA/US on 10/24/03 08:33 AM -----

R3 Mountaintop
Sent by: David Rider To: Sherry Lorenz <sherlorenz@fmtc.net>
cc: John Forren/R3/USEPA/US@EPA
Subject: Re: West Virginia Mountaintop Removals(Document link: R3 Mountaintop)

10/22/03 08:31 AM

Dear Ms. Lorenz:

We very much appreciate your comments on the MTM DEIS. The comment period is still open and will close on January 6 , 2004. We plan to respond to comments after the close of the comment period and during the preparation of the Final EIS. Responses to comments, including yours, will be released to the public as part of this Final EIS. Given the many hundreds of comments we have received thus far, and the many thousands we expect to receive before the end of the comment period, we will be responding categorically to all comments we receive on the Draft EIS.

Again, thank you for your comments. Please continue to check the MTM website for updates on the schedule for release of the Final EIS. We appreciate your patience as we continue to work on this difficult issue.

----- Forwarded by David Rider/R3/USEPA/US on 10/24/03 08:30 AM -----

Sherry Lorenz <sherlorenz@fmtc.net> To: R3 Mountaintop@EPA
cc:
Subject: West Virginia Mountaintop Removals
10/17/03 03:28 PM

October 17, 2003

To: The EPA, Region 3
From: Sherry Lorenz, Fort Mill, South Carolina

To Whom It May Concern At the EPA:

I wrote you a lengthy e-mail on my concerns about MTR in WV, on August 24th, 2003. I had kindly asked for a reply. Now 2 months later, I still haven't heard anything from you at all. I don't understand. I believe we
all deserve to be acknowledged in whatever form or fashion, and I am deeply
disappointed. Would you please inform me why I haven't been given a reply?
Thank you.

Sincerely,
Sherry Lorenz

3-2

Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

dbl456@earthlink.net To: R3 Mountaintop@EPA
cc:
12/17/2003 03:40 PM Subject: Comments on draft programmatic EIS on mountaintop removal coal mining

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I find it unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities. 1-9

PLEASE CONSIDER LIMITING YOU PLAN TO ONLY, SAY, 30% OF THE MOUNTAINS THAT WOULD OTHERWISE BE DESTROYED.

The Bush administration really must consider alternatives that reduce the environmental impacts of mountaintop removal. 1-8

Sincerely,

David and Marsha Low
8018 Hammond Road
Cheltenham, Pennsylvania 19012

cc:
Senator Arlen Specter
Senator Rick Santorum
Representative Chaka Fattah

Dear Mr. Forren,

I am writing in regard to the public comments accepted for the Draft Programmatic Environmental Impacts Statement on Mountaintop Mining/Valley Fills in Appalachia. I am a professional biologist by vocation; therefore, my comments will be restricted to those areas in which I am inherently familiar. I will attempt to be succinct in my points of criticism; however, the breadth of the inadequacies of this report far exceeds the potential for a single, thorough evaluation by any one individual.

First, I must bring to surface the fact that many of the leading regional experts in the fields of science in which this study focused were not selected to participate. These experts, particularly those in academia, neither conducted the field research nor interpreted the data collected; consequently, a study not completed by the preeminent experts will always be subject to scrutiny. It seems counterintuitive that a study of this magnitude, upon which so much emphasis has been placed, would fail to incorporate these individuals, many of whom have devoted a lifetime of study on the topics dealt with in this document. 9-2-2

I also have deep concerns with the language used in many portions of the scientific analyses and conclusions. For example, the loss of habitat to organisms that specialize in and require such habitat to complete critical portions of life history will most certainly be impacted by the proposed action. In this document, many habitat specialists were considered to be "possibly" affected, or "may be" detrimentally influenced by an action which will most certainly lead to population declines. Again, the scientific personnel must be both confident and competent in order to make such assertions, but in this case, they were neither.

The study fails to consider the potential problems associated with large-scale land disturbance and the encroachment of exotic and invasive species. In the realm of vegetation alone, the potential for colonization of reclaimed mine sites by aggressive nuisance species is extremely high. The establishment of such species (e.g. *Ailanthus altissima*) in large monocultures will not only cost taxpayers millions of dollars to control but also stands to threaten the timber industry as a whole. Furthermore, species that are rarely encountered in the region due to range restrictions cannot be considered as rare in regard to global, national, or state status. If this were the case, nuisance species such as *Passer domesticus* would have once been considered rare under this convention. 18-2-2

In conclusion, this study is incomplete. It is strong on implications and conclusions that are not supported by the research conducted in this study or documented in the scientific literature. It is a perversion of true science, in which facts are established based on observations leading to expertise—this study is vacant in both. 4-2

Respectfully yours,

Benjamin M. Lowman

Mr. John Forren, US EPA
1650 Arch Street
Philadelphia, PA 19130

REC'D AUG 2 0 2009

Dear Mr. Forren,

I am writing to comment on the EIS on Mountaintop Removal. Scientific proof confirms the knowledge of local residents that mountaintop removal/valley fill coal mining is irreversibly and substantially harming the forests and streams of West Virginia and Kentucky. 1-9

Throughout central Appalachia, some of the most productive and diverse temperate hardwood forests in the world have been destroyed when coal companies blast off hundreds of feet of mountaintops to get thin seams of coal. In most circumstances, the former lush forests will remain degraded as grassy, unproductive scrubland for at least several centuries. These unproductive grasslands cover nearly 20% of some southern West Virginia counties. 7-5-2

Millions of tons of rubble from the former mountains are pushed into the adjacent valleys. Coal companies have already buried hundreds of miles of Appalachian streams, destroying not only the streams themselves, but creating disastrous impacts to downstream waterways and towns. As residents point out, mountaintop removal is also devastating the culture and communities of the region. 5-7-2 10-2-2

Despite all this evidence of harm, the EIS draft does not recommend curbing the environmental harm caused by mountaintop removal, but asks the agencies that are supposed to be regulating coal mining to streamline the way they work together.

I love our West Virginia mountains and spend a lot of time hiking, biking, bird watching, photographing, and enjoying the beauty of our special state. I am very concerned for my children and grandchildren who will have much less space to recreate and recuperate. In a world of ever increasing stress, these mountains and streams are all the more necessary for daily renewal of the spirit, not to mention life-sustaining water without which there can be no life.

I believe the EIS should show the real impacts of mountaintop removal and offer real solutions, not push forward a harmful agenda of destruction.

Sincerely,

Lois A. Ludwig

Lois A Ludwig

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"luthert@asme.org
" <luthert To: R3 Mountaintop@EPA
cc:
01/06/2004 02:57 PM Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I have no inherent conflicts with mountaintop removal mining.

I do think that an environmental bond or severance tax should be paid and held in trust for at least 50 years to help address any future problems that may develop.

As we gain experience with the method, future costs and consequences will be better estimated. Such a bond could easily be structured for trading on an exchange.

This way, money will be available to address future concerns and the land will not be abandoned. In addition, difficult to assess environment issues will eventually develop a cost basis, making feasibility assessments of this mining technology more accurate.

Give the process an economic basis, and I am in favor.

11-8-2

Sincerely,

tom luther
411 cutler street
Raleigh, NC 27603-1921
luthert@asme.org

REC'D JAN 0 2 2004

Grace and Thomas Lynch
PO Box 114
Rock Cave, WV 26234

December 30, 2003

Mr. John Forren, US EPA
1650 Arch St
Philadelphia, PA 19103

We are writing to comment on the Mountaintop Mining/Valley Fills in Appalachia Draft EIS. The reported evidence shows that the practice of Mountaintop removal mining creates devastating environmental damage. Yet the draft EIS discusses "unavoidable impacts from MTM/VF projects" (IV B-9). Why not consider limiting the practice to a scale of operation that allows for adequate reclamation? It is Mountaintop Mining that has led to fewer coal-related jobs and greater irreversible damage to communities and the environment. And in talking about long-term consequences, the study notes that "with sufficient time, although it may take hundreds of years, natural processes for mine soil improvement and succession can overcome conditions limiting reforestation, and the resource loss is not irreversible" (IV A-4). Hundreds of years? Geologic time should not be applied here. Some of the effects of nuclear war are mitigated over hundreds of years, but war is still unacceptable. Government should work for the people now, with regulations that protect our environment and safeguard our future. 1-9

What of the economic impact of MTM/VF? The travel and tourism industry in WV, which depends on the state retaining and protecting its natural beauty, provides more jobs than do "extractive industries" (Charleston Gazette December 8, 2003). In addition to direct employment there are many people that benefit from travel and tourism, such as those involved in the arts, entertainment and the businesses involved in building and maintaining second homes. The conditions that promote tourism are negated by the realities of Mountain Top Removal mining. The draft EIS reports negative impacts yet recommends streamlining the permitting process rather than setting reasonable limits to the mining practice. 11-7-2

We own a chairmaking business that uses WV hardwoods. We have supported ourselves and raised a family by responsibly harvesting maple, hickory, cherry, oak and walnut, turning these native trees into "value added" furniture. We depend on tourism to market our products within the state. And we are depending on the regulatory agencies to recognize that protecting our environment is its immediate responsibility.

Sincerely,

Grace Glaser-Lynch
Thomas Lynch

Grace Glaser-Lynch
Thomas Lynch

--- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:58 PM -----

Ann Lynnworth
<ann@sonic.net> To: R3 Mountaintop@EPA
cc:
12/30/2003 05:12 PM Subject: Strengthen draft EIS on mountaintop removal coal mining

December 30, 2003

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of devastating mountaintop removal mining. 1-9

Sincerely,

Ann Lynnworth
241 Main Street
Littleton, NH 03574
USA

REC'D JAN 0 5 2004

January 2, 2004
Lawrence B. Lyon, Jr.
114 Center Street
Madison, West Virginia 25130
(304)369-2131

Mr. John Forren
U. S. E.P.A.
(3 EA 30) 1650 Arch Street
Philadelphia, Pennsylvania 19103

Dear Sir:

I could show you land that was surface mined fifty years ago. I would have to show it to you because it is covered with trees.

The reason so many people get flooded in West Virginia is because of the contour of the land. Too many people live at the bottom of the drain. They need to move to higher ground. 1-11

When the State Road Commission or a shopping mall fills a valley no one objects. When a coal company plans to fill a valley there are many objections. Water will find its level regardless of valley fill.

America is too dependent on foreign energy and West Virginia needs level ground for housing and industry above the flood plain.

Sincerely,

Lawrence B. Lyon, Jr.

REC'D JAN 0 9 2004

Malcolm R. MacPherson, Ph.D.

Mr. John Forren EPA
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

January 2, 2004

Dear Mr. Forren:

It has come to my attention that the EPA is proposing rule changes governing mountaintop removal for mining in Appalachia. This practice has buried whole valleys with tailings and other debris. It has inundated streams, wiped out forests, polluted water supplies, destroyed wildlife habitat, and negatively altered nearby communities. These mining practices are unethical and unprincipled. 1-9

We must have laws and regulations that protect clean water. We need to strengthen protections for rural people and the environment. The federal government has ignored its own studies in this regard. It is time for sanity in mining practices.

Therefore, I oppose all three alternatives listed in the Environmental Impact Statement Report. I further oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for any mining activity. 1-5 1-10

Thank you for hearing my concerns.

Sincerely,

Dr. M. R. MacPherson
34 Coyote Mountain Rd
Santa Fe, NM 87505-8178

34 Coyote Mountain Road
Santa Fe, NM 87505

Phone: 505-989-9502
Fax: 505-989-8699

Jan 3, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

REC'D JAN 0 9 2004

Dear Mr. Forren

Having witnessed first-hand the abomination euphemistically referred to as mountaintop removal, I consider it to be the most destructive peacetime activity in human history. Were this level of destruction perpetrated against our country the work of a foreign power, it would be considered an ACT OF WAR. It is a desecration, a tragedy and an outrage. I am disgusted, but not surprised to learn that the Bush administration plans to continue to let coal companies wage war on Appalachia with mining practices that level mountaintops, wipe out forests, bury streams, and destroy communities.

According to the administration's draft Environmental Impact Statement (EIS) on mountaintop removal coal mining, the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the draft EIS proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and future generations. 1-5

The lush Appalachian forests that are being destroyed are representative of the mixed mesophytic forest, first described by pioneering forest ecologist E. Lucy Braun. The mixed mesophytic is the oldest and most biologically diverse hardwood forest in North America and one of the two most biologically diverse temperate forests on Earth. World Wildlife Fund says this area is a biodiversity hotspot that, if saved, will go far in protecting the vast variety of life on Earth. These forests provide habitat and breeding grounds for an incredible wealth of plant and animal life, including a melodious array of flitting, colorful neotropical migrant birds.

These verdant forests, sheltering mountains and stream-fed valleys have nurtured Appalachian culture for over 200 years, and before that were the hunting grounds of native peoples. They are our national natural heritage and must be protected for the abundance they provide if allowed to function as they have for thousands of years. Instead, in West Virginia alone, at least 500 square miles of our temperate forests, home to so much diversity and beauty, have been permanently annihilated. Coal companies have forever buried over 1,200 miles of biologically crucial Appalachian headwaters streams. 1-9

The blasting has ruined homes and water wells, as well as people's nerves. "Fly rock," more aptly named fly boulder, can rain off mountains, endangering resident's lives and homes. Hundreds of folk and entire communities are being displaced as homes get in the way of the 20-story-high draglines. Heavy rains

can gush off the clearcut, compacted MTR sites, flooding the communities below. Coal trucks overloaded with twice the legal weight-limits are out of control, killing people and tearing up roads and bridges which taxpayers have to pay to fix.

Mountaintop removal generates huge amounts of waste. While the solid waste becomes valley fills, liquid waste is stored in massive, dangerous coal slurry impoundments, often built in the headwaters of a watershed. The slurry is a witch's brew of water used to wash the coal for market, carcinogenic chemicals used in the washing process and coal fines (small particles) laden with all the compounds found in coal, including toxic heavy metals such as arsenic and mercury. Frequent blackwater spills from these impoundments choke the life out of streams. One "spill" of 306 million gallons that sent sludge up to fifteen feet thick into resident's yards and fouled 75 miles of waterways, has been called the southeast's worst environmental disaster.

Tragically, disgustingly, the Bush administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal mining is to weaken existing environmental protections. This "preferred alternative" ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining, including: 1-9

- over 1200 miles of streams have been damaged or destroyed by mountaintop removal;

- forest losses in West Virginia have the potential of directly impacting as many as 244 vertebrate wildlife species;

- Without new limits on mountaintop removal, an additional 350 square miles of mountains, streams, and forests will be flattened and destroyed by mountaintop removal mining.

In light of these facts, we urge you to completely ban this hideously destructive outrage called mountaintop removal. Thank you for your consideration of these comments.

Sincerely,

Andy Mahler
Linda Lee
Tom Moore
Anthony Blondin
Meredith Jabis
Erik Vilk
3875 Sout County Road 50 West
Possum Ridge
Paoli Indiana 47454

REC'D JAN 0 2 2004

December 30, 2003
(page 1 of 2, Craig Mains)

John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren:

I am writing to comment on the Draft EIS on Mountaintop Mining. I have a number of concerns about the environmental affects of mountaintop mining. However, my primary concern centers on the direct loss of streams. I do not believe there is any argument or rationale that can effectively justify burying streams.

The scientific section of the EIS provides quite a bit of information on the value of headwater streams and the diversity and unique assemblage of species found in the draft EIS study area. The draft EIS states that "many biologists agree that the presence of a biotic community with such unique and rare populations should be considered a critical resource." Additional information describes the area as having possibly the richest salamander fauna in the world. Obviously, these populations, which utilize headwater streams, are eliminated when headwater streams are filled. 7-2-2

In terms of biological function, headwater streams are akin to root hairs on a plant. How many roots hairs can be damaged before a plant dies? When we eliminate headwater streams we affect the overall function of the river system. There has to be a limit to how many streams we can sacrifice. I would suggest that we have already sacrificed more than enough.

Unfortunately, it seems that, while the draft EIS acknowledges the biological richness of the central Appalachians and the damage (both known and potential) to the environment caused by mountaintop mining, the prescribed alternatives do little to protect the environment. This is because they fail to adequately address the glaringly central problem of direct stream loss due to valley fills.

Mr. Forren, I live in north-central West Virginia. While surface mining is present in my area, very little of it would qualify as mountaintop mining. What we do have, however, are hundreds of stream miles that are, for all practical purposes, biologically dead due to acid mine drainage. Every day when I drive by orange streams I am reminded of the permanently damaged environment I live in. Many citizens groups, private industry, and state and federal agencies are now engaged in efforts to rehabilitate these streams. We are finding that it is very expensive and the efforts are almost always less than what was hoped for. I consistently hear people justify the destruction of these streams by saying that it happened during an earlier era when people didn't value the environment as much

REC'D JAN 0 2 2004

(page 2 of 2, Craig Mains)

or that much of the destruction was an unpleasant, but necessary by-product of the World War I and II efforts.

Mountaintop mining is a continuation of the same type of disregard for the environment that left us with hundreds of miles of dead streams in north-central West Virginia. The difference is that by now we should know better and that we cannot use the convenient excuse of it being a war sacrifice. Another important difference is that burying streams is permanent. We can always hold out hope that acid mine drainage streams will someday be able to be truly restored since they at least still physically exist. There is no hope that a stream will some day be restored once it is buried under thousands of tons of fill. 1-9

I encourage you to amend the draft EIS to include an option that allows for no valley fills. I believe that some day the technology will exist to mine the coal without removing mountain tops and without burying streams. It will be a shame and a tragedy if, when that day comes, we have irreversibly filled in thousands of more miles of living streams. We have killed enough streams in Appalachia with acid mine drainage. Let's not bury what's left. 1-8

Sincerely,

Craig Mains
137 Hoffman Ave.
Morgantown, WV 26505

30 December 2003

The Group of Seven

Lawren Harris (1885–1970)
Mount Lefroy, 1930
Oil on canvas
139.5 x 153.5 cm (52⅝ x 60 ⅜ in)
Purchase 1975
1975.7

Re: strangtown draft EIS mountaintop removal

Dear Mr Forron,
Surely you can do something to stop the destructive & devastating practice of ripping up our precious Earth!
Please consider alternatives that protect streams, vallays, & forests.
Thank you!
O. MANDRUSSOW

© The McMichael Canadian Art Collection

USA 37

REC'D JAN 0 7 2004

Mr John Forron
Project Manager
USEPA (3EA30)
1650 Arch st
Philadelphia PA 19103

1-9

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:43 PM -----

Carli Mareneck <cmareneckd@plane twv.com> 01/06/2004 01:06 PM

To: R3 Mountaintop@EPA
cc:
Subject: E.I.S. comments

Attention: Mr. John Forren- U.S. EPA

This is the final day for commentary on the Environmental Impact Statement regarding mountaintop removal. My last minute comments come not out of not ou of negligence but rather the difficulty of facing such grim facts and the irresponsibl behavior that leads to them.

It is my understanding that the purpose of the E.I.S. is to evaluate options for IMPROVING agency programs that would contribute to REDUCING the adverse environmental impacts of mountaintop removal mining.

The E.I.S. clearly states that there has already been devastating impact from mountaintop removal including destruction of almost 7% of our region's forests and1,200 miles of pristine headwater streams now buried under fill from mining.

The "preferred alternative" suggested within the E.I.S. is simply a travesty.Rather th protecting or reducing the irrevocable impacts of MTR this "alternative will plainly make it easier for coal companies to get mining permits by eliminating the buffer zo rule and changing the current limit on nationwide permits.

1-5

I honestly don't understand how those responsible for this sham can live with your consciences. You are paid by our tax dollars for the express purpose in your agenci name: Environmental PROTECTION Agency yet you spend your waking hours dismantling the laws for protecting the environment.It is a disgrace. The agency should be called Envronmental Pollution Agency. It is ironic that citizens must do: private funds to litigate against agencies supported with our tax dollars to uphold la you are hired to uphold for us.

The other irony is that it makes no sense. The coal achieved through these method: will not solve the long term needs for power and the damage is irrevocable. In Wes Virginia, our pristine water and scenic beauty are our stongest asset for developmer of tourism and a strong economy. Your agency should be working on alternative energy development not colluding with old king coal. For shame on your sham. It would be instructive if it were your home which would fall to ruin under the blastin Only then might you act to protect these lands from wanton and unnecessary destruction.

Sincerely, Carli Mareneck

DeliveredDate: 01/06/2004 07:35:02 PM

Attention Mr. John Forren / US EPA:

When you are considering our citizen input on the wanton destruction called Mountaintop Removal Mining, please act as if it is your family's home that is being rattled apart; as if it is your mother's gravesite that is being buried forever; your lifetime of hard work and dedication that is being leveled.

This activity is nothing less than rape. If you and your agency condones and permits this attrocity to the lives and properties of your fellow Americans, you might as well be condoning and permitting the rape of our daughters. You have the power & responsibility to stop this horror, Mr. Forren. We're counting on you to listen to your conscience and stand up to end this brutal and selfish nightmare.

Sincerely, P.A. Mareneck Sweet Springs, WV

1-9

----- Forwarded by John Forren/R3/USEPA/US on 11/24/03 10:27 PM -----

Marjayrog@aol.com 11/24/03 03:55 PM

To: John Forren/R3/USEPA/US@EPA
cc:
Subject: Mountaintop Mining

Please know that our church has a partner parish church in Appalachia, and so we have a special interest in the people. Please do everything you can to protect Appalachian streams and rivers from moutaintop mining pollution. It is a disgrace that mining companies can so easily remove a whole mountaintop to get at the coal and then dump the debris into Appalachian wters.

Thank you for anything you can do to support the legislation now under consideration to stop this practice.

1-9

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"tom@bloomingfun.com" <tom To: R3 Mountaintop@EPA
cc:
01/06/2004 01:18 PM Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

Oh, never mind. Go ahead and trash the eco-system for the short term enrichment of your friends, at the expense of future generations. You've obviously got the connections, so you must be entitled. 1-9

Patriotically yours,

Thomas Marshalek
1001 Briarcliff Drive
Bloomington, IN 47404
tom@bloomingfun.com

Forestry chief resigns over mining
Nov. 1, 1998 Charleston Gazette

State Forestry Director Bill Maxey said he was pressured by the Underwood administration into downplaying his opposition to mountaintop removal mining.

By Jennifer Bundy
THE ASSOCIATED PRESS

Division of Forestry Director Bill Maxey says he is retiring because the Underwood administration tried to stifle his opposition to mountaintop removal strip mining, which he calls a blight akin to AIDS.

Underwood aides forced him to issue a statement toning down his position, Maxey says. And the Division of Environmental Protection and federal Office of Surface Mining tried to get him to approve regulations that would justify blasting the tops off mountains to get at coal seams, leaving flat, treeless expanses and valleys filled with debris.

Administration and agency officials deny the allegations. Maxey, whose resignation was effective Saturday, also says he quit because Underwood's two-year delay in reappointing him was a "sort of a slap in the face."

"For two years I sat there not knowing if I was going to have a job or not. That poisoned me on the job," Maxey says. The delay made him reluctant to voice his opinion on mountaintop removal, which Underwood supports, fearing he would be fired.

Maxey, who has held the post since 1993, was reappointed by Underwood on Aug. 24 and confirmed by the Senate on Oct. 20.

"I think mountaintop removal is analogous to serious disease, like AIDS," says Maxey, who has been an opponent of surface mining since before the Federal Surface Mining Control and Reclamation Act of 1977.

He spoke against the act to a congressional subcommittee while he was a tenured associate professor of forest

management at West Virginia University, where he taught fo 11 years. Maxey also has worked 15 years as a forester for Westvaco Corp. and seven years for Georgia Pacific.
Although the law requires mined land to be reclaimed for an equal or greater use than its pre-mining use, most becomes grassland, not a timber-rich forest, Maxey says. And procedu that could make the land good for trees are not being widely used, he says.

Timber is the only renewable natural resource and the industry employs more than 30,000 people, Maxey says. By comparison, the coal industry employs about 18,000, includ about 4,400 at surface mines, according to the West Virginia Coal Association.

Maxey also says that Underwood has never consulted hi on forestry issues during the governor's two-year tenure. "For 44 years I went to work with enthusiasm. I couldn't wait get to work. The last two years I had to force myself," says Maxey, 64.

The only contact he had with Underwood's office was af Secretary of State Ken Hechler, an opponent of mountaintop removal, quoted Maxey as saying the practice had "destroyec 250,000 acres of forest.

Two Underwood aides called him and ordered him to issue a rebuttal, Maxey says. Instead, he put out a statement saying 300,000 acres of forest had been "disturbed."

"I had to, against my will, really, say that it could be properly reforested. ... That isn't what I really wanted to say. That's what I was told to say," Maxey says.

"Absolutely untrue," says Underwood spokesman Dan Page, one of the two aides Maxey says pressured him.
Page says he called Maxey to see if Hechler had quoted him correctly.

He and Jimmy Wedge, who says he called Maxey on an unrelated matter, say they suggested Maxey clarify his positi if he believed Hechler had misrepresented it.

"I've never ordered anybody to do anything against his will and wouldn't," Page said.

Maxey would not have been fired for publicly opposing mountaintop removal, he said. Neither he nor Wedge knew why it took Underwood so long to reappoint Maxey.

If he could not live with the Underwood administration's opinion on mountaintop removal, "Why did he take the job?" Wedge asked.

Maxey also says he was pressured by the state DEP and the federal OSM to approve a phrase Maxey says would justify leveling mountains. The agencies wanted the phrase to be included in specifications written by the Division of Forestry for voluntary reclamation of mines into woodlands.

The phrase, which is in 1997 state surface mining regulations, says flat or gently rolling land on a site reclaimed to woodland is "essential for the operation of mechanical harvesting equipment."

Maxey says the idea that timber can be cut only on flat land is ridiculous because loggers have used automated equipment on West Virginia's hills for decades.

John Ailes, chief of the DEP's Office of Mining and Reclamation, says someone in his office may have asked Maxey to include the phrase only to emphasize the existing law.

"We want to try to get more reforestation. That's important," Ailes says. "I don't understand where he's coming from at all."

Dennis Boyles, regulatory programs specialist at the OSM's Charleston office, denied his agency pressured Maxey.
Boyles says the phrase refers to an exception to the 1977 law that requires mountaintop removal mines to be reclaimed to their "approximate original contour."

Coal operators do not have to do that if they prove the site can be logged only with equipment that cannot be used on hills.

Maxey says few mines are reclaimed to their "approximate original contour."

Also, most mines strip topsoil and do not replace it, Maxey

says. The soil that is returned is covered with lime and hydroseeded with grasses, which makes the ground too alkaline for trees.

"In other words, our valuable hardwood forest is lost for the next 150 to 200 years," Maxey says.

Coal companies also compact the soil. "Then you are trying to plant a tree in concrete. It doesn't work," Maxey says. If coal companies returned the topsoil, including several feet of weathered sandstone that was not compacted or leveled, the land would immediately be ready for seedlings, Maxey says. "If we can't get it stopped, this is the next best thing, a last resort. We need to stop mountaintop removal," Maxey says.

MOUNTAINTOP REMOVAL HURTS STATE'S PAST AND ITS FUTURE MAN ON THE MOONSCAPE
THE CHARLESTON GAZETTE 01/28/2000
By WILLIAM MAXEY

As director of West Virginia's Division of Forestry, it was 1996 before I fully realized the magnitude and permanent elimination of West Virginia's forestland in the southern and central coalfields by mountaintop removal of coal. A helicopter tour of these areas and the results of an updated forest inventory disclosed not only the size and rate of deforestation, but the loss of West Virginia's mountain culture.

Since the federal Surface Mining Act of 1977 was enacted, all of West Virginia's governors and legislators of both parties have been very supportive of the illegal variances in this law that allowed mountaintop removal of coal. I served at the pleasure of governors of both parties from 1993 to 1998.

I wish to make it clear that while I was head of the Forestry Division I attempted to work within the system to encourage the West Virginia Mining and Reclamation Association and the West Virginia Department of Environmental Protection to prevent further devastation. The only concession was to make my professional proposals an option, as opposed to mandatory.

Mountaintop removal has already caused long-term problems and until Judge Charles Haden's II ruling, the rate was increasing. I resigned as a matter of principle, for I did not want to share in the blame nor guilt for the loss of West Virginia's heritage through the loss of our forested mountains.

In West Virginia, from 1977 to 1997, 300,000 acres were made into a moonscape by the decapitation of our mountains. Vast areas of our Mountain State are made uninhabitable for our citizens.

The rate of decapitation of our mountains had increased to 30,000 acres annually. It will take 150 to 200 years before trees would become re-established following such a drastic

mining practice.

All native plant and animals are practically eliminated (not to mention the impact on threatened & endangered species).

The headwaters of hundreds of miles of our streams are filled with millions of tons of mountaintops (overburden.)

This irresponsible excavation of coal makes the landscape so unsightly that it ruins tourism. (I can't envision tourists coming to see these barren wastelands!) Isn't tourism supposed to be our growth industry?

The timber and wood products industry employs some 30,000 in West Virginia. Prior to mountaintop removal, all of West Virginia's 11 million acres of forests were producing substantial volumes of high-value timber. Trees are our only renewable natural resource.

There are about 17,000 jobs in coal mining. The mining industry projects the coal reserves to be depleted within 20 years.

Mountaintop removal of coal employs just a few hundred of these workers. It is a sad irony that mountaintop removal actually destroys more coal mining jobs than it creates; union miners are expediently replaced by relatively few heavy-equipment operators.

Maxey resigned as director of the Division of Forestry in November 1998.

Bill Maxey on Mountain Top Removal
source: The Charleston Gazette

Bill Maxey served as director of the Division of Forestry from 1993 until 1998 when he resigned in protest against mountain top removal. Maxey was a tenured associate professor of forest management at West Virginia University, where he taught for 11 years. Maxey also has worked 15 years as a forester for Westvaco Corp., and seven years for Georgia Pacific.

The following quotes were taken from two articles in The Charleston Gazette

"I think mountaintop removal is analogous to serious disease, like AIDS..." Bill Maxey, Former Director of the WV Forestry Division in the Charleston Gazette
"...most mines strip topsoil and do not replace it."

"It will take 150 to 200 years before trees would become re-established following such a drastic" mining practice."

"It is a sad irony that mountaintop removal actually destroys more coal mining jobs than it creates; union miners are expediently replaced by relatively few heavy-equipment operators."

"This irresponsible excavation of coal makes the landscape so unsightly that it ruins tourism. (I can't envision tourists coming to see these barren wastelands!)"

"All native plant and animals are practically eliminated."

"In West Virginia, from 1977 to 1997, 300,000 acres were made into a moonscape by the decapitation of our mountains. Vast areas of our Mountain State are made uninhabitable for our citizens."

"Timber is the only revewable natural resource and the industry employs more than 30,000 people..."

"I resigned as a matter of prinicipie, for I did not want to share in the blame nor guilt for the loss of West Virginia's heritage through the loss of our forested mountains."

In an interview with Bill Maxey (Not in The Charleston Gazette):

The over 300,000 acres already destroyed by mountain top removal would have grown 60,000,000 board feet of timber every year forever. 60,000,000 board feet of timber could have been cut every year forever, without reducing the timber mass, on what has already been destroyed.

--- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:32 PM -----

"paintedtoes@yaho
o.com" To: R3 Mountaintop@EPA
<paintedtoes cc:
Subject: Please Stop Destructive Mountaintop
Removal Mining
01/06/2004 03:18
PM

Dear Mr. John Forren, Project Manager,

Please amend the EPA's draft ENVIRONMENTAL IMPACT STATEMENT so as to limit the effects of harmful mountaintop removal mining.

The Bush administration should consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. I urge you to immediately amend the draft EIS accordingly. 1-5

Sincerely,

Julia Martin

Julia Martin
220 West 107th St. 2H
New York, NY 10025
paintedtoes@yahoo.com

Julian Martin
Date: 1/09/2004
City: Charleston State: WV Zip: 25314

The U.S. Fish and Wildlife Service said the alternatives, offered in the EIS, to regulate mountaintop removal mining "cannot be interpreted as ensuring any improved environmental protection." One alternative should be the banning of the filling of any streams with mine waste and please don't then re-define mine waste as something nice. The fact that the National Mining Association is pleased with the EIS recommendations is sure proof they are as worthless as a bucket of warm spit. Very much for the mountains, are you? Julian Martin Outreach Chair, West Virginia Highlands Conservancy, 1525 Hampton Road Charleston, WV 25314 1-8

U.S. Environmental Protection Agency (3ES30)
1650 Arch Street
Philadelphia, PA 19103

REC'D JAN 1 3 20

Dear Mr. Forren:

I live in eastern Kentucky. In this region we experience the negative impacts of mining every day. Many of us have water wells that have run dry or turned orange or black due to mining. More than 1,200 miles of our headwater streams have been buried or destroyed by valley fills. Almost 7 percent of our forests have been – or will soon be – leveled by mountaintop removal. Flooding in our communities is increasingly common and severe. We fear the day when the sludge ponds above our homes break – as they did in Martin County, KY in 2000 – burying us at the bottom of hundreds of millions of gallons of toxic sludge. Our quality of life has been shattered by excessive blasting that shakes our homes, cracks our foundations, and wrecks our peace. 10-4-2

Some call this area a national sacrifice zone. Living here, it feels more like a war zone.

It doesn't have to be this way. There are laws on the books to protect clean water, public safety and the environment. It is perfectly clear that mountaintop removal and valley fills are a violation of the federal Clean Water Act and the Surface Mining Control and Reclamation Act. These practices should be banned. The coal industry must not be allowed to destroy our homeland.

The draft Environmental Impact Statement on mountaintop removal and valley fills is a dangerous gift from the Bush administration to the coal industry. Instead of recommending ways to *stop* the destruction, the EIS proposes ways to make it easier for coal companies to level our mountains, bury our streams, and wreck our homeland. This is shameful and wrong. 1-9

I know first hand the terrible impacts of mountaintop removal and valley fills. I also believe we can build a better future for eastern Kentucky. We can have clean streams and a healthy forest and restore our quality of life. We can create good jobs for our people that don't wreck the environment. And we have to start down a different road now.

Take a stand. Enforce the law. Ban mountaintop removal and valley fills. Stop the coal industry from destroying everything that we value most. Start making choices that will benefit our children and yours.

Sincerely,

Name Namon Martin
8038 Hwy 7 South
Tornado, KY 41862

REC'D JAN 0 8 2004

Mr. John Forren
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

January 5, 2004

Dear Mr. Forren:

I'm writing you out of my concern about the Bush administration's apparent lack of commitment to our natural environment. His priority seems to be to sacrifice natural resources for the sake of corporations and practices geared toward profit motive instead of human, animal, and land welfare.

Specifically, I'm upset about PLANS TO CONTINUE TO LET COAL COMPANIES DESTROY APPALACHIA WITH MINING PRACTICES THAT LEVEL OUR MOUNTAINTOPS, WIPE OUT FORESTS, BURY STREAMS, AND DESTROY COMMUNITIES. This is an abuse of our lands, waterways, habitats, and humanity!

This administration's draft Environmental Impact Statement (ES) on mountaintop removal coal mining, states that the environmental effects of mountaintop removal are widespread, devastating, and permanent. Yet the EIS draft proposes no restrictions on the size of valley fills that bury streams, no limits on the number of acres of forest that can be destroyed, no protections for imperiled wildlife, and no safeguards for the communities of people that depend on the region's natural resources for themselves and their future.

The Bush administration's "preferred alternative" for addressing the problems caused by mountaintop removal coal mining is to weaken existing environmental protections. This ignores the administration's own studies detailing the devastation caused by mountaintop removal coal mining. These include: 1-10

--over 1200 miles of streams have been damaged or destroyed by it
--forest losses in West Virginia have the potential of directly impacting as many as 244 vertbrate wildlife species
--without new limits on mountaintop removal, an additional 350 sq. mi. of mountains, streams, and forests will be flattened and destroyed by it

In light of these facts, I URGE YOU TO CONSIDER ALTERNATIVES THAT REDUCE THE ENVIRONMENTAL IMPACTS OF MOUNTAINTOP REMOVAL. I am hopeful that the Environmental Protection Agency will place the welfare of the land, water, and habitat, as well as the humans depending on them, before the welfare of corporations that will destroy them needlessly and cruelly.

Sincerely,
Mary McAnally
Rev. Mary McAnally
76 N. Yorktown
Tulsa, OK 74110-5214

First Name: James Last Name: McCarthy Letter Date: 1/2/2004
City: Farmingdale State: NY Zip: 11735-1312

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. Mountain top mining for coal is a destructive method for coal extraction. This was made evident in an episode of Nova seen on PBS stations. The waste from the mountain top was dumped into a nearby valley. This in turn dammed the creek that ran through the valley. The damming of the creek changed the nearby town forcing residents to move. Eventually enough people moved from the town to cause business that were there for generations to close due to lack of business.

Eventually this town will become a bust leaving and additional scar to a once beautiful ecosystem and community. The mining company even had the audacity to say that they leave the mined mountain top better than when the found it. If they feel a flat mountain top is better then they have a perverse sense of beauty. What makes this request the most saddening is that I have write to you Mr. Forren, an administer within the EPA, about protecting the environment. I think you and all of the EPA political appointees have forgotten what the purpose of the EPA is. On your webpage the mission of the EPA is clearly stated; EPA's mission is to protect human health and to safeguard the natural environment ? air, water, and land ? upon which life depends. For 30 years, EPA has been working for a cleaner, healthier environment for the American people. Please remember this mission when you are making your recommendations about how we as a country can not allow mountain top mining. That instead of making it easier, we should be putting further restrictions. Finally, I also want to remind you that you and everyone from Mr. Mike Leavitt on down works to protect the environment and not to facilitate President Bush wishes on nullifying the great work that has been done over the last thirty years at protecting our environment.

Respectfully, James Mc Carthy

1-9

January 2, 2004

REC'D JAN 05 2004

Mr. John Forren
U.S. EPA
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. Forren I live in a small community which is completely surrounded by mountain top Removal. Some of the Strip mines are Cabots, Jupiter, Horizon, Wind-River, Dakota and Massey Coal. There may be some more.

Our community is constantly being bombarded with explosives, dust, noise and severe flooding. I would like for you to imagine what it would be like to live in our circumstances. Our property is now worthless. If I could get a fair market value from selling my home and property, I would certainly do so. No one in their right mind would want to live here. As top paying citizens I think its unfair that our communities are subjected to the horrors of so-called mountain-top Removal Mining. All waste of our community and surrounding

10-4-2

11-3-2

Respiratory Illnesses are increasing – even in our children. Entire mountains cannot be removed without severe dust levels – which are poorly monitored. 10-5-2

I live in the small community of Cozy, Rt. 85, in Boone County, West Virginia.

Our mountains used to have an adequate supply of top soil, now we have rock. When it rains – even small amounts – the water gushes down the mountain with terrible force and gutts our small hollows out into our highways blocking traffic + costing high amounts in road repairs + personal property damage. 17-1-2

Many people are very busy today. Some have not written out of despair + hopelessness. Some have signed form letters which have been criticized by some in the Charleston Daily Mail, newspaper. Yes, these ones should have found the time to write their personal thoughts and beliefs. I read some of the form letter and they express our firm convictions even though they are not hand-written. I pray they will be counted respectfully. 3-3

Sincerely,
Dara L. McCarty
P.O. B. 94
Bob White, WV 25028

REC'D NOV 2 6

My name is Erikad McCarty, and I am 12 years old. I live in a house on a small hill in the town of Cozy. We have mines all around us. Dakota, Calista, Supitor, Horizon, Nen-River, Massy, and a few more surround us. When they blast, our house feels like it's going to detach from the foundation. Plates fall off tables and break. Watt-knots fall of the wall. 16-1-2

Dakota Mine is 10ft deeper than our well. It may be contaminated with arsinic. 5-2-2

When it floods, the town of Bob-White has to be evacuated. People say it's an act of God. I'll tell you right now, it is not an act of God, and even I can see that. It is because of 1 simple reason. Yes, it is because of the environment, rain, and the natural process but it was never this bad before. 17-2-2

We haven't any mountains to keep the water in, so it runs down the mountains, (what is left of them), into our rivers and streams, which in turn rise with the extra water.

If I, being 12 years old, can see this, then these companies can, too. But they do not care about the people. It's all about money, money, money. There is coal in other places. They do not have to blast the tops of our mountain off to get it. The earth has been forming for millions of years. We are not going to run out. Please stop mountain top removal. It's a very ugly, destructive thing. 1-9

Sincerly Yours,

Erika McCarthy

REC'D JAN 0 9 2004

January 5, 2004

Mr. John Forren EPA
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Dear Mr. John Forren EPA,

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. 1-10

I'm disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. I do not support any of the three alternatives contained within the Environmental Impact Statement Report. All three options will make it easier for companies to destroy streams, endangering wildlife and nearby communities. 1-5

May I make a fourth, better option which will solve the problem of acquiring needed mineral resources, reduce harmful mining effects, and create tens of thousands of new jobs instantly? It boggles my mind that so few in charge of government understand the simplicity of national mandatory recycling programs to recover the huge amounts of resources that so often go to waste in some landfill. All manufacturers must be required to "take back" their own products for reconditioning or dismantling. Since they made them, they know best what is in them, and how best to break it down into recyclable raw materials. Product design should facilitate easier steps to accommodate it's eventual demise.

The EPA or any number of agencies could share responsibilities for enforcing this "post-use decommission and dismantle" program. Sure, consumers and manufacturers will have to share shipping cost increases associated with returning all expired products back to their maker, but this cost would be offset by the creation of jobs. The end result is more economic expansion and less ecological destruction, and wouldn't that make the EPA look good?

We would be following in the footsteps of other "greener" nations who believe sustainable living requires less consumption and more recycling. The minor cost increase will be worth every penny, because the alternative (more permanent environmental destruction and habitat loss) is unthinkable. I challenge you to take these sustainable ideas and press them forward to your superiors. Don't do it just for me, or for your own

career enhancement; do it for all the generations yet to come.

Sincerely,

Kerry McClure
1501 W Washington St
Rm 203
Phoenix, AZ 85007-3222

----- Forwarded by David Rider/R3/USEPA/US on 01/09/2004 02:51 PM -----

kmcclure@courts.sp.
state.az.us To: R3 Mountaintop@EPA
cc:
01/05/2004 04:11 PM Subject: Don't fill our streams with waste materials

Dear Mr. John Forren EPA,

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. I'm disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. I do not support any of the three alternatives contained within the Environmental Impact Statement Report. All three options will make it easier for companies to destroy streams, endangering wildlife and nearby communities. 1-9 1-10 1-5

Don't fill our streams with waste materials It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases. I'm disappointed and angry that the federal government ignored its own studies when it proposed weakening, rather than strengthening, protections for people and the environment. I do not support any of the three alternatives contained within the Environmental Impact Statement Report. All three options will make it easier for companies to destroy streams, endangering wildlife and nearby communities. 1-10 1-5

May I make a fourth, better option which will solve the problem of acquiring needed mineral resources, reduce harmful mining effects, and create tens of thousands of new jobs instantly? It boggles my mind that so few in charge of government understand the simplicity of national mandatory recycling programs to recover the huge amounts of resources that so often go to waste in some landfill. All manufacturers must be

how best to break it down into recyclable raw materials. Product design should facilitate easier steps to accommodate it's eventual demise. The EPA or any number of agencies could share responsibilities for enforcing this "post-use decommission and dismantle" program. Sure, consumers and manufacturers will have to share shipping cost increases associated with returning all expired products back to their maker, but this cost would be offset by the creation of jobs. The end result is more economic expansion and less ecological destruction, and wouldn't that make the EPA look good? We would be following in the footsteps of other "greener" nations who believe sustainable living requires less consumption and more recycling. The minor cost increase will be worth every penny, because the alternative (more permanent environmental destruction and habitat loss) is unthinkable. I challenge you to take these sustainable ideas and press them forward to your superiors. Don't do it just for me, or for your own career enhancement; do it for all the generations yet to come.

Sincerely,

Kerry McClure
1501 W Washington St
Rm 203
Phoenix, AZ 85007-3222

----- Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:49 PM -----

mcjwva@aol.com
01/06/2004 11:02 AM

To: R3 Mountaintop@EPA
cc:
Subject: Comments on draft programmatic EIS on mountaint removal coal mining

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

It is completely ridiculous for anyone to think that hundreds of acres of mountaintops can be devastated with earth moving machines, and the surrounding inhabitants, INCLUDING HUMANS, of that area won't also be devastated as well!!!

We have had it with the polution in our water, air, and the disastrous flooding!!! 1-9

Do something that you know is right!!! Sleep in peace tonight!!!
Don't let money rule over human and environmental rights!!!

PROTECT WEST VIRGINIA'S NATURAL BEAUTY, IT'S VALUABLE AND LIFE SUSTAINING RESOURCES, AND THE HEALTH AND SAFETY OF IT'S RESIDENTS

Sincerely,

Chelena McCoy
218 Ely Fork Rd
Sumerco, West Virginia 25567

cc:
Senator John Rockefeller
Representative Nick Rahall
Senator Robert Byrd

796 W Outer Drive
Oak Ridge, TN
December 16, 2003

REC'D DEC 2 2 2003

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

Draft Environmental Impact Statement on Mountaintop Removal Mining, May 2003

I am opposed to the proposed rule changes that make it easier to get permits for mountaintop removal and to eliminate protection for streams. I am also opposed to the three alternatives in the DEIS; none of these will protect our water or our communities. 1-5

The communities and mountains of Appalachia are too precious to subject to the devastation of mountaintop removal.

The nation needs stronger protection from impacts of mining instead of expedited permitting. The coal removed will be burned once (with further damage to the environment), but damage from the mining will persist. 1-9

I urge EPA to redo this impact statement giving more weight to the long term interests of the country.

Sincerely,

Harold McCurdy

Harold McCurdy

cc: Pres. George W. Bush
Rep. Zach Wamp
Sen. Bill Frist
Sen. Lamar Alexander

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"lesmcf@juno.com" <lesmcf
01/07/2004 09:24 AM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintc Removal Mining

Dear Mr. John Forren, Project Manager,

For God's sake, Mr. Forren, have you no respect for the future of our country? I strongly urge you to amend the EPA's draft environmental impact statement so as to limit the effects of harmful mountaintop removal mining. I find it unconscionable that your agency plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests, bury streams and destroy communities. 1-9

Sincerely,

Howard McFann
9210 High Point drive
Lake Park, FL 33408
lesmcf@juno.com

--- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:43 PM ----

Johnmcferrin@aol.com
To: R3 Mountaintop@EPA
cc:
01/06/2004 03:43 PM
Subject: Draft Environmental Impact Statement

Dear Sir or Madam:

Please consider these as my comments on the Draft Environmental Impact Statement on Mountaintop Removal/Valley Fills.

While the technical portions of the draft contain some useful information, the recommendations and proposed alternatives are an embarassment. The agencies involved gathered all this data on the harmful environmental effects of mountaintop removal mining. They responded to these effects by proposing alternatives for reshuffling permitting responsibilities among agencies.

What is the point of that? Why go through the entire NEPA process if all you can come out with is a reshuffling of agency responsibilities. There are no alternatives suggesting how we could do mountaintop removal in a more environmentally sound manner. There is no alternative that we not do it at all. The only alternatives proposed are that we keep doing it in the same way we always have, causing the same damage the Draft documents. The pseudo-alternatives offered are that we choose among different agencies to preside over the environmental devastation.

If the agencies involved are not embarassed by this then I can only conclude that they have reached the point where they are beyond embarassment.

The only way the agencies can fix this Draft is to shred it. Having done that, they can try again, including proposing specific actions that would minimize the environmental effects of mountaintop removal mining. The alternatives should include not doing it at all. By "actions" I do not mean more suggestions for paper shuffling or ponderings on which agency should preside over the present course of
environmental devastation. I mean real, on the ground, action that change the way we mine, including whether we mine by this method at all.

I am familiar with the comments filed by the West Virginia Highlands Conservancy. I agree with those comments and wish to adopt them as my own.

1-5

Sincerely,

John McFerrin
114 Beckley Avenue
Beckley, WV 25801

January 3, 2004

REC'D JAN 0 6

Mr. John Forren EPA
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

REC'D 3 20

Dear Mr. John Forren EPA,

It is unconscionable that the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. Mountaintop removal mining and valley fills should not be allowed and the laws and regulations that protect clean water must not be weakened. In particular, I oppose the proposal to change the stream buffer zone rule that prohibits mining activity within 100 feet of streams. This rule should be strictly enforced for valley fills and in all other cases.

1-10

This is another fine example of the President's big-business-knows-best philosophy. Please don't forget what the "P" stands for in EPA. You are supposed to be a steward of our natural treasures and our clean air and water, not a protector of the interests of Mr. Bush's big corporate campaign contributors. Please do your job.

Thank you.

Scott McGarrity
9230 Estate Cove Circle
Riverview, FL. 33569

Sincerely,

Scott McGarrity

Scott McGarrity
9230 Estate Cove Cir
Riverview, FL 33569-3103

Mr. John Forren
U.S. E.P.A. (3EA30)
1650 Arch St.
Philadelphia, PA 19103

Carol McGeehan
568 West 31st
Holland, Mich. 49423
Dec 18, 2003

REC'D DEC 22 2003

Dear Mr. Forren:

Please include my concerns in the public comment on the Environmental Impact Statement on mountaintop mining. The May 29, 2003 draft EIS fails to adequately address ways to reduce dramatically the environmental harm from mountaintop mining. This practice has destroyed more than 700 miles of streams in the Appalachian region since 1985, by blasting the tops of mountain peaks and pushing millions of tons of the rubble into surrounding valleys and streams. The EPA must not weaken environmental protections that should protect against the devastation caused by mountaintop mining. The EPA's mandate is to protect the environment, not the profits of mining companies. Please address these concerns in the Environmental Impact Statement on mountaintop removal.

1-5

1-10

"M. McGeorge" <mandw@charter.net>
To: R3 Mountaintop@EPA
cc: IMAGINEMEW@aol.com
Subject: Mountain Top Removal
08/16/03 11:45 PM

Mr. John Forren, USEPA

It is grossly unfair to the citizens of West Virginia to pollute and deform our beautiful state by scraping off the tops of mountains and dumping the rubble in our mountain streams. In the process, owners of adjacent lands have their property values destroyed as well.

The interests of the state and the majority of its people are being trampled in order to enhance the profits of the coal industry.

11-3-2

West Virginia's future is in marketing our beautiful mountain places for tourism and these very places are being destroyed as we discuss it.

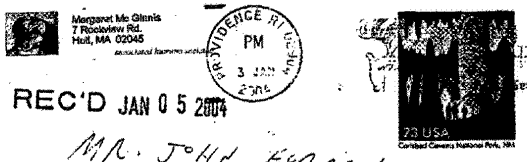
11-7-2

I believe that the majority of WV voters will remember this blatant in justice the next time we go to the polls.

I am writing to urge the the Draft Environmental Impact Statement on mountaintop mining be strengthened to adequately protect the mountains & drastically reduce the environmental harm from strip mining.

REC'D JAN 0 5 2004

1-10



REC'D JAN 0 5 2004

MR. JOHN FURGAN
U.S. EPA (3EA30)
1650 ARCH ST.
PHILADELPHIA PA 19103

Forwarded by David Rider/R3/USEPA/US on 01/06/2004 03:55 PM -----

jhmwva@aol.com
01/02/2004 05:51 PM

To: R3 Mountaintop@EPA
cc:
Subject: Comments on Draft programmatic Environmental Impact Statement on mountaintop removal coal mining

Enviromental Protection Agency Environmental Impact Statement

Dear Enviromental Protection Agency Environmental Impact Statement,

Everyone knows how destructive mountaintop removal mining is to forests, streams and wildlife. I find it hard to believe that my President is not trying to find some way to reduce its impact, but instead is encouraging it to take place faster.

Please try to find some way to protect our natural resources and communities in West Virginia instead of encouraging their destruction.

1-9

Thank you sincerely,

Judith McHugh

Sincerely,

Judith McHugh
2008 Northwood Road
Charleston, West Virginia 25314

----- Forwarded by David Rider/R3/USEPA/US on 01/30/2004 11:21 AM -----

Meagan McKay <shmegg4@yahoo.com> 01/14/2004 08:26 AM
To: R3 Mountaintop@EPA
cc:
Subject: Mountain Top Mining Draft EIS Comments

Meagan McKay
8B Hickok Place
Burlington, VERMONT 05401

January 14, 2004

John Forren
US EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Forren:

I oppose the Bush administration plans to continue to let coal companies destroy Appalachia with mining practices that level mountaintops, wipe out forests and bury streams in the valleys below. While I have no loyalties to any one particular party, I am a registered voter who takes environmental issues very seriously, as do many of my peers. Please take the time to objectively consider this issue, and ask yourselves if the benefits from environmental destruction can honestly outweigh a global cost that is immeasureable. 1-9

Sincerely,

Meagan McKay

---- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 01:59 PM -----

"camckenzie@yahoo.com" <camckenzie 01/06/2004 02:57 PM
To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintc Removal Mining

Dear Mr. John Forren, Project Manager,

Dear Mr. Forren,

Mountaintop removal mining which buries streams in the process is OBVIOUSLY a bad thing. Why is this even being considered? It's all about money and power. Please do your job and protect the environment.

The Bush administration must consider alternatives that reduce the environmental impacts of mountaintop removal and then implement measures to protect natural resources and communities in Appalachia, such as restrictions on the size of valley fills to reduce the destruction of streams, forests, wildlife and communities. I urge you to immediately amend the draft EIS accordingly. 1-5

Sincerely,

Catherine McKenzie
19830 133rd PL SE
Renton, WA 98058
camckenzie@yahoo.com

----- Forwarded by David Rider/R3/USEPA/US on 12/18/2003 05:21 PM -----

Bonni McKeown <barrelhbonni@hotmail.com> 11/04/2003 02:40 PM

To: R3 Mountaintop@EPA
cc:
Subject: mountaintop removal mining

Our beautiful state has been devastated by mountaintop removal mining. Whatever the technicalities, cutting off mountains and filling streams and valleys with waste is environmentally harmful and a crime against nature.
The new environmental impact statement needs to reflect the monumental cumulative effects of this type of mining. 9-2-2

Bonni McKeown, P.O. Box M, Capon Springs WV 26823

CATHERINE MCLAUGHLIN <moncottage@msn.com>

To: R3 Mountaintop@EPA
cc:
Subject: Mountaintop Mining

08/20/03 08:25 PM

<?xml:namespace prefix="v" /><?xml:namespace prefix="o" />
Please stop mountaintop mining in West Virginia or anywhere else for that matter. It is insane to destroy perfectly natural environments for the sake of justifying jobs. The impact of these action are very destructive. Including flooding potentials, contaminating waters, destroying streams, animal habitats, as well as human beings. 1-9

Please stop!!!!

Cathe McLaughlin
100 Saddlerock Road
Lynchburg, VA 24503

----- Forwarded by David Rider/R3/USEPA/US on 01/12/2004 02:49 PM -----

Corinna Therese McMackin <cmcmacki@darkwing.uoregon.edu>
To: R3 Mountaintop@EPA
cc:
Subject: Draft MTR/VF EIS comment

01/06/2004 11:41 AM

Corinna McMackin
1050 Lorane HWY
Eugene, OR 97405

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

January 6, 2004

Dear Mr. Forren,

I am writing today to share my comments on the draft Environmental Impact Statement on mountaintop removal mining/valley fills released May 29, 2003. The DEIS claims to work toward "[effecting] better environmental protection for mountaintop mining and valley fill operations." The draft's studies articulate the widespread, irreversible ecological damage caused by MTR/VF practices. Nevertheless, the alternatives proposed in the draft suggest a weakening of current laws and regulations in favor of developing a more efficient mining process. This stated purpose of and the recommendations made within the DEIS are in conflict with one another.

I oppose the alternatives outlined in the DEIS. I disagree with the suggestion to dismiss the application of the 100-ft stream buffer zone identified in SMCRA to valley fill construction, and I challenge the legitimacy of a DEIS that fails to examine a full-range of alternatives as required by NEPA. The May 2003 DEIS does not analyze real alternatives to MTR/VF mining. The 2003 DEIS dismisses alternatives proposed in the preliminary draft (January 2001), which analyzed placing real limits on the size of mountaintop removal valley fills. Furthermore, the draft fails to include a No MTR/VF Mining alternative. Considering the permanent ecological damage of MTR/VF, the falling coal-related employment rates, and the disproportionately high rates of poverty in top-coal producing counties across Appalachia, a No MTR/VF Mining alternative should be a consideration in the DEIS. 1-5 1-10 4-2

The MTR/VF EIS is the product of community opposition to conditions created by MTR/VF operations. These same community groups call not for a stop to coal-mining in general, but rather for an end to the destructive nature of MTR/VF operations. I believe that if the EIS is going to fulfill either its commitment to the original plaintiffs in the Bragg V. Robertson case or its obligation to a full-range of alternative as provided by NEPA, then the EIS is required to analyze a No MTR/VF Mining alternative. 1-8

The agency-sanctioned terms overburden and interburden reflect an official climate that has favored a vision of Appalachia as coal. These terms reduce the mixed mesophytic forest to a burden above or between seams of coal. This narrow vision of the use and value of Appalachia's coalfields is reproduced in the DEIS. It is reflected in the federal and state agencies failure to consider alternatives to MTR/VF coal-mining. It is due to the agencies' inability to see or evaluate alternatives to MTR/VF coal-mining, as required by law under NEPA and requested by citizen-action groups, that I feel the current DEIS should be deemed insufficient. I believe the study should be continued with additional attention paid to community-identified impacts as well as community-based alternatives to MTR/VF mining. 4-2

Sincerely,

Corinna McMackin

22845 Lorena Dr.
Woodland Hills, CA 91367
January 20, 2004

Mr. John Forren
U.S. EPA (3EA30)
1650 Arch St.
Philadelphia, PA 19103

REC'D JAN 26 2004

Dear Mr. Forren

Tell the Bush administration not to weaken environmental protections that apply to the companies that are conducting mountain top removal. Mining companies in Appalachia are blowing off tops of mountains and dumping tons of waste into valleys below. This buries streams and devastates forests & ruins communities. 1-10

Sincerely,
Elizabeth G. McMahon

----- Forwarded by David Rider/R3/USEPA/US on 01/08/2004 11:39 AM -----

James McMillin <jmcmil55@bellsouth.net> 12/30/2003 03:07 PM
To: R3 Mountaintop@EPA
cc:
Subject: Mountaintop removal

Mr. John Forren
Project Manager
U.S. Environmental Protection Agency (3EA30)
1650 Arch Street
Philadelphia, PA 19103
Email: mountaintop.r3@epa.gov

I, along with most other Kentuckians want you to stop destructive mountaintop removal mining.

Mountaintop removal coal mining is a form of strip mining in which coal companies search for coal throughout Appalachia by literally blasting hundreds of feet off the tops of mountains, pushing millions of tons of mining waste rubble into surrounding valleys and burying hundreds of miles of streams. The Bush administration has released a draft environmental impact statement assessing the effects of mountaintop removal mining that confirms that the resulting environmental and social harms are severe and mostly irreversible. 1-9

More than 1200 miles of streams already have been buried, damaged or destroyed; hundreds of square miles of forested mountains flattened; and generations-old

communities of coalfield residents have been forced from their homes by this
extremely destructive mining practice. To avoid additional and significant
devastation of the Appalachian region's natural resources -- and of the
communities that depend on those resources -- mountaintop removal must be much
more strictly limited. Indeed, without new limits on mountaintop removal, an
additional 350 square miles of mountains, streams, and forests will soon be
flattened and destroyed.

Although the administration's environmental impact statement is supposed to
suggest ways to limit the environmental harm caused by mountaintop removal, the
Bush administration is proposing just the opposite: it wants to allow
mountaintop removal to continue and even make it *easier* for coal mining
companies to obtain permits for this form of mining. 1-10

This kind of typical double speak from this administration and trashing of decades of beneficial envirionmental work has got to stop from the inside out or we will be forced to change it from the outside with our votes in the next election.

Sincerely,

James and Carla McMillin

REC'D AUG 26

John Forren
U.S. EPA (3ES30)
1650 Arch Street
Philadelphia, PA 19103

August 18, 2003

Dear Mr. Forren:

I find it completely astonishing that anyone could read the recent Environmental Impact Study regarding mountaintop removal and yet still believe that the solution is to further weaken the current lukewarm regulations that apply to all aspects of coal mining in the Appalachian region.

The report clearly documents the extensive damage done to our land, forests, water and ecosystems by mountaintop removal and valley fills. Not only that, but the report provides strong evidence for banning mountaintop removal altogether. Yet the recommendations in the report itself totally ignore the findings of the study and instead propose actions that would mean more mountaintop removal with even fewer protections for people and the environment. 1-10

As I understand it, the original purpose of the report were to look for ways to IMPROVE agency programs under the Clean Water Act, Surface Mining Control and Reclamation Act (SMCRA) and Endangered Species Act (ESA) that will contribute to REDUCING the adverse environmental impacts of mountaintop removal operations and excess spoil valley fills in Appalachia. Then, when the report was finished in 2000, the Bush Administration refused to release it because it didn't like the results!!! This is a travesty of the democratic system. When an administration denies public access to information it is very clear that the administration is not interested in the public welfare but is in collusion with the big corporations that own the coal companies and other entities in charge of the devastation of the environment.

This lack of concern for the people and the environment is made even clearer when one reads the "Alternatives" #1, 2 or 3 contained within the EIS report, which are no alternatives at all, but simply more ideas to make it easier for the coal companies. None of these recommendations will protect our stream and forest ecosystems. They will not protect our communities. In fact, the recommendations have no relation to the problems caused by mountaintop removal mining and valley fills as documented in the studies. 1-5

Instead, in its continuing quest to go down in history as the presidential administration with the worst environmental record, the Bush administration has used the EIS process to propose rule changes to make it even easier for coal companies to get permits for mountaintop removal and to eliminate protections for streams. Doing away with the "buffer zone" rule that protects streams from the effects of coal mining is merely an early Christmas present to the coal companies that makes it even easier for them to get permits for mountaintop removal and valley fills, the most blatantly destructive mining method ever used. It ignores the science and evidence about what mountaintop removal mining is doing and ignores the public's demand for clean water, healthy environment and safe communities.

The report itself is misleading for several reasons.

- It calls for "harmonizing" federal regulations, which simply means reducing all regulations to the lowest common denominator and therefore the least effective and meaningful rules; and requires "science-based methods," which is a particularly devious way to ensure that

coalfield residents cannot strengthen regulations to prevent more damage by the coal industry without "conclusive" scientific proof.

- The report rejects without any meaningful consideration all proposals that would have restricted the use of valley fills or enforced existing laws. There is plenty of scientific evidence – and a strong legal case – that documents the widespread and irreversible damage the coal industry is doing to our region. Leveling mountains and burying streams is wrong and must stop. 1-7
- The report recommends weakening existing laws and regulations that protect clean water, including doing away with the 25-year-old "stream buffer zone" rule because it calls into question the use of valley fills and creates "confusion," and re-defining some streams out of existence.

If mountaintop removal is allowed to continue, there will be no streams – and hence no water sources – left in the Appalachian region. As it is, we have lost 724 miles of streams, and another 1,200 miles have been adversely affected, due to both mountaintop removal and the concerted effort at lack of enforcement by all the agencies involved. Even without further relaxing the regulations, the Appalachians will lose 2,200 square miles of forest by 2012, as a direct result of coal-mining operations. In addition, 600 square miles of land and another 1,000 miles of streams will be destroyed. This will make the land uninhabitable, rendering thousands more people homeless. Hundreds of people have already lost homes, water, and property due to uncompensated damage by coal companies.

It is imperative that the government pay very close attention to its own report. Not only can we not relax the current regulations, we also need additional restrictions and enforcement requirements. Mountaintop removal cannot be allowed to continue as a coal extraction method. Even beyond the environmental devastation, it is economically the least beneficial method to the communities in which it occurs. 1-9

I moved from middle Tennessee to eastern Kentucky ten years ago and was impressed by the beauty of the mountains of Appalachia. Those mountains are disappearing, being plowed over into the green valleys to leave a brown treeless moonscape (reclamation laws are rarely, if ever, enforced). This is the legacy of mountaintop removal. The people causing this rampant ruin – including President Bush – do not live here, do not have to see it, and are at no risk of having their homes, property, and their very lives destroyed by it. We must stop mountaintop removal before there are no mountains left to remove.

Thank you for your time,

Janet C McReynolds

Janet Comperry McReynolds
Krypton, KY

cc: President George W. Bush

----- Forwarded by David Rider/R3/USEPA/US on 12/11/2003 04:40 PM -----

Shawn Meagher <SA-MEAGHER1@WIU.EDU> 12/05/2003 11:52 AM

To: R3 Mountaintop@EPA
cc:
Subject: 61455 Stop Mountaintop Mining

December 05, 2003

John Forren, Environmental Protection Agency
U.S. EPA (3EA30)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Forren,

Will you please stop the move to weaken regulations on mountaintop mining in the Appalachian Mountains? I am a biologist who has recently vacationed in West Virginia. I was struck by the beauty of this region. Mountaintop mining destroys biodiversity and harms the health of our people. 1-10 1-9

I oppose the alternatives proposed in your recent Environmental Impact Statement, which ignore the detrimental environmental impacts of this activity. 1-5

As a US citizen, I ask you to please implement stronger NOT weaker regulations for this practice, and I wholeheartedly support the recommendations from the organization, American Rivers (attached below).

Thanks for your time.

Shawn Meagher
****
AMERICAN RIVERS SAYS:
I am opposed to any changes that would weaken the laws and regulations that protect our rivers and streams from the effects of mountaintop mining and valley fills. As a result, I am opposed to each of the alternatives evaluated in your 1-10 1-5

May 29, 2003 draft Environmental Impact Statement (EIS). 1-5

Your draft EIS contains indisputable evidence of the devastating and irreversible environmental harm caused by mountaintop mining. Other agency studies also show that mountaintop mining contributes to flooding disasters in mountain communities.
Unfortunately, each of the alternatives in the draft EIS ignores the findings of these studies and the very purpose of the EIS- to find ways to minimize, to the maximum extent practical, the environmental consequences of mountaintop mining.
The draft EIS does not examine a single alternative that would reduce those impacts.

Worse, your "preferred alternative" would clearly increase the damage from mountaintop mining by eliminating the Surface Mining Control and Reclamation Act's buffer zone rule that prohibits mining activities that disturb any area within 100 feet of larger streams, eliminating the current limit on using nationwide permits to approve valley fills in West Virginia that are larger than 250 acres, and giving the Office of Surface Mining a significant new role in Clean Water Act permitting for mountaintop mining (a role it does not have under current law). 4-2

Our environmental laws require, and the citizens of the region deserve, a full evaluation of ways to reduce the unacceptable impacts of mountaintop mining.
I urge you to abandon your "preferred alternative" and to reevaluate a full range of options that will minimize the enormous environmental and economic damage caused by mountaintop mining and valley fills.

Thank you for your consideration.

Sincerely,

Shawn Meagher
314 1/2 S Randolph
Macomb, IL 61455-2236
USA
SA-MEAGHER1@WIU.EDU

9 Allen St, Apt B
Burlington VT 05401

REC'D JAN 14 2004

January 10, 2004

Dear Mr. Forren:

I am writing to express my extreme disapproval of the preferred alternative outlined in the mountaintop removal coal mining EIS. The EIS shows that mountaintop mining causes significant + irreversible environmental harm, with demonstrated poor success in restoring damaged areas. It is therefore in very poor judgement that the Bush Administration has decided to weaken the laws that regulate this practice. 1-13 1-10

The scientific findings of the EIS ~~should be used to~~ support an alternative that increases the regulation of this harmful mining practice. Please reject the current preferred alternative and protect the important natural resources that are being jeopardized. Thank you for your consideration. 1-13

Sincerely,
Colby Mecham

Elaine Melnick

REC'D JAN 2 6 2004

Re: Mountaintop removal

Dear Mr. Forren,

I am strongly opposed to the Bush administration's plans to allow coal companies to continue to destroy Appalachia with mining practices that level mountaintops, eliminate forests and bury streams in the valleys below. The land can never be fully restored to its pristine state. Mountaintop removal mining should not be allowed. The Federal government ought to strengthen laws protecting the environment. 1-9

Sincerely
Elaine Melnick

E. Melnick
18221 Karen Dr
Tarzana, CA 91356

Barbara Mendelsohn

----- Forwarded by David Rider/R3/USEPA/US on 01/07/2004 03:42 PM -----

"Barbara@StorylineArts.com" <Barbara 01/06/2004 02:06 PM

To: R3 Mountaintop@EPA
cc:
Subject: Please Stop Destructive Mountaintop Removal Mining

Dear Mr. John Forren, Project Manager,

I worked in Appalachia in the early '70s, and I saw the devastating effects of strip mining. And I revisited Kentucky last year—near Hyden—and again saw the ecological trauma of the coal companies on the environment.. I urge you not to support mountaintop removal. 1-9

Barbara Mendelsohn
161 E. Valley View
Ashland, OR 97520
Barbara@StorylineArts.com