

**Statement of Joe Lovett, Appalachian Center for the Economy and Environment,
to the House Committee on Government and Regulatory Reform, Subcommittee on
Regulatory Affairs**

July 14, 2011

Introduction

Good afternoon. Thank you for the opportunity to testify today. My name is Joe Lovett and I am the Executive Director of the Appalachian Center for the Economy and the Environment, a law and policy center located in Lewisburg, West Virginia. I am also a lawyer who has been attempting to enforce surface coal mining and other environmental laws that federal and state regulators refuse to enforce in Appalachia.

From its inception in 2001, the Appalachian Center has been at the forefront of the battle to end the abuses associated with the devastating method of coal mining known as mountaintop removal. The Center serves low-income citizens, generations-old communities, and local and grassroots groups of central Appalachia.

For the last fourteen years I have been fighting to enforce the Clean Water Act and other environmental laws in central Appalachia with the goal of stopping mountaintop removal. During that time, regulatory agencies have time and again looked the other way while coal operators ignore the law and tear down our mountains.

Given this climate of lawlessness, EPA's actions to regulate surface mining in the region during the past two and a half years have been necessary not only to enforce the Act against mining operators, but also to ensure that other regulatory agencies comply with the law. Too often state and federal agencies see their jobs not as enforcing the law and protecting the environment and the communities in the region, but as protecting coal operators from having to comply with the law. Rather than forcing mountaintop removal operators to conform their actions to the law, too many federal and state agencies bend or change the law to accommodate destructive mining practices.

Thomas Paine famously wrote in Common Sense that "in America, *the law is king*. For as in absolute governments the King is law, so in free countries the law *ought* to be king; and there ought to be no other." In contrast, in central Appalachia, "King Coal" governs us. When a law must be changed or misinterpreted to satisfy coal operators, our politicians and regulators know where their allegiance lies. The rule of law has been replaced by the rule of "coal." John Adams' maxim that we should seek to establish "a government of laws and not of men" is not well understood by our politicians and regulators.

For example, the cabinet secretary of West Virginia's Department of Environmental Protection, Randy Huffman, recently sued the United States Environmental Protection Agency for trying to raise the level of protection given to streams in the region. This

action was taken to protect the coal industry from EPA and citizen enforcement of the Clean Water Act. Secretary Huffman does what he can to assure that the coal operators, rather than the environment and local citizens are protected. Secretary Huffman is charged with enforcing the Clean Water Act. Instead his agency regularly bends the Act to accommodate mining operators. Kentucky environmental regulators have followed West Virginia's example and have also refuse to require mountaintop removal operations to comply with the Clean Water Act. Both states have been recruited by the industry to fight against the Clean Water Act's provisions that were enacted to protect the states' streams.

Similarly, the United States Army Corps of Engineers continues to disregard its duties under the Clean Water Act by issuing permits to mountaintop removal operators. The Corps has changed a longstanding regulation (the definition of "fill material") in its attempt to legalize mountaintop removal and is the federal agency that is literally overseeing the illegal destruction of our mountains and streams. For years, the Corps has issued permits for huge mountaintop removal mines with little more than a wink and a nod. The unlawful issuance of a permit to Arch Coal's Spruce Mine is a paradigmatic example of the Corps' refusal to follow the law.

Additionally, until 2008, the buffer zone rule, 30 C.F.R. 816.57, (overseen by the federal Office of Surface Mining (OSM)) stated that no land within 100 feet of a perennial stream or an intermittent stream may be disturbed by surface mining unless the regulatory authority specifically authorizes surface mining activities closer to, or through, such a stream. The regulatory authority was authorized to allow such activities only upon finding that surface mining activities would not cause or contribute to the violation of applicable State or Federal water quality standards, and would not adversely affect the water quantity and quality or other environmental resources of the stream. On its face, this rule prohibited valley fills in intermittent and perennial streams and, in 1999, a federal judge in West Virginia agreed that this is what the rule means. Although, that decision was reversed on appeal for purely procedural reasons, the Court of Appeals did not reach the merits.

To protect the coal industry, OSM failed to enforce this law; instead as a last minute give away to the coal industry, the previous administration changed the stream buffer zone rule to remove the "buffer" and expressly allowed coal companies to dump their wastes right into our mountain streams. It is absurd to allow, as OSM, the Corps and State regulators have, mountaintop removal operators to permanently bury more than 2000 miles of mountain streams beneath billions of tons of mining waste and still claim to be enforcing the Clean Water Act and Surface Mining Act.

The stated goal of the Clean Water Act is to protect the physical, chemical and biological integrity of the waters of the United States. Nothing could be more antithetical to this goal than mountaintop removal. Although all of the peer-reviewed science demonstrates that mountaintop removal is devastating our region's ecosystem, it does not take a PhD in biology to see that blowing up mountains and forests is bad for the environment. The science developed by EPA and University researchers detailing the harm associated with

the destruction of whole watersheds is unassailable, but it is not necessary to rely on scientists to tell us that burying streams beneath tens of millions of tons mining waste is bad for streams.

The mining industry naturally takes advantage of federal regulators' failure to enforce the law. The coal-rich mountains of central Appalachia are home to generations-old communities and contain beautiful hollows through which thousands of pristine and ecologically rich mountain streams flow. Mountaintop removal mining carelessly lays waste to our mountain environment and communities. The deforestation is not only an ecological loss, but also a permanent blow to a sustainable forest economy in a region in desperate need of long-term economic development. Mountaintop removal has already transformed huge expanses of one of the oldest mountain ranges in the world into a moonscape of barren plateaus and rubble.

HB2018

The power of coal to undermine the Clean Water Act extends beyond the borders of coal producing states. When the Clean Water Act was passed in 1972, the need was apparent. Rivers were catching on fire. Pollution choked waterways. Most rivers and streams weren't safe to swim in. Now, to help mountaintop removal operators evade regulation, some members of the House of Representatives from my State and region are supporting an effort by the coal industry and other major polluters to turn the page back to those days.

A bill working its way through Congress, H.B. 2018, the "Clean Water Cooperative Federalism Act of 2011," would undo decades of progress and render the Clean Water Act all but useless. I believe that if voters understood the implications of the bill, they would turn from office any legislator that supports it.

The bill – supported by my Representative (Mr. Rahall) and Representative Capito, also from West Virginia – strikes at vital provisions of the Clean Water Act. It would strip the U.S. Environmental Protection Agency of the ability to make states improve deficient water quality standards. The EPA could no longer withdraw approval of state programs, limit financial assistance or object to specific permits because of inadequate water quality standards enforced by the state.

As an analysis of the legislation by the EPA shows, the bill would prohibit the agency from revising water quality standards without agreement from the state "even in the face of significant scientific information demonstrating threats to human health or aquatic life." The bill allows a state to overrule a determination by EPA scientists that a dredge and fill permit could harm municipal water supplies, fishing, wildlife or recreation areas.

Essentially, the bill would turn the Clean Water Act on its head, giving states the right to allow less stringent protection of the nation's waterways. These changes to the Clean Water Act would lead to a race to the bottom in places like West Virginia where industry holds substantial sway over state regulatory agencies. The entire point of the Clean Water

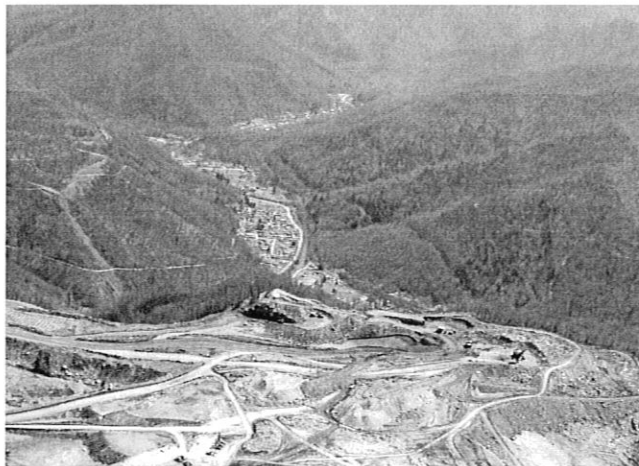
Act is to ensure a nationwide clean water standard because the waters of this nation are a shared resource.

The bill seems aimed at curbing EPA's regulation of mountaintop removal mining, but its effects would be felt far beyond Appalachia. I hope that Congress will not eviscerate the Clean Water Act for all parts of the Nation to satisfy Appalachian mining operators. Although the bill may have been written to accommodate mountaintop removal, it would result in the most substantial weakening of the Clean Water Act since its passage. It is impossible to support both H.B. 2018 and a clean environment.

Mountaintop Removal Coal Mining

Disregarding human and environmental costs, mountaintop removal coal mining as currently practiced in Appalachia eradicates forests, razes mountains, fills streams and valleys, poisons air and water, and destroys local residents' lives. Toxic mine pollution contaminates streams and groundwater; hunting and fishing grounds are destroyed. Because the large-scale deforestation integral to mountaintop removal takes away natural flood protections, formerly manageable storms frequently inundate and demolish downstream homes.

According to the Environmental Impact Statement, from 1985 to 2005 over 7000 valley fills were authorized in central Appalachia for mountaintop removal and other strip mining operations. This has led to the destruction of over 1700 miles of Appalachian streams. Past, present, and future mining in Appalachia may cumulatively impact 1.4 million acres. The destruction of these nearly 1.5 million acres of forest is profound and permanent. Mountaintop mining causes "fundamental changes to the terrestrial environment," and "significantly affect[s] the landscape mosaic," with post-mining conditions "drastically different" from pre-mining conditions.





Valley fills are strongly associated with violations of water quality standards and loss of stream uses. EPA in its 404(c) veto of the Spruce No. 1 permit in West Virginia stated that increasing levels of conductivity have “significant adverse effects” on biological communities in streams. EPA’s April 1, 2010 guidance on water pollution downstream from mountaintop removal sites further outlines significant water quality impacts from surface mining operation. A recent EPA study found that nine out of every 10 streams downstream from surface mining operations were impaired based on a genus-level assessment of aquatic life. Another federal study found elevated levels of highly toxic and bioaccumulative selenium in streams downstream from valley fills. These impairments are linked to contamination of surface water supplies and resulting health concerns, as well as widespread impacts to stream life in downstream rivers and streams. Further, the estimated scale of deforestation from existing Appalachian surface mining operations is equivalent in size to the state of Delaware. Appalachian deforestation has been linked to significant changes in aquatic communities as well as to modified storm runoff regimes, accelerated sediment and nutrient transport, reduced organic matter inputs, shifts in the stream’s energy base, and altered thermal regimes. Such impacts have placed further stresses on water quality and the ecological viability of watersheds. A 2008 seminal EPA study found that mountaintop removal mining is strongly related to elevated conductivity in streams and causes downstream biological impairment.

Environmental Impact Statement on Mountaintop Removal

Because of litigation that I brought in 1998, EPA, the Army Corps of Engineers and OSM performed a programmatic Environmental Impact Statement on mountaintop removal. The EIS concluded that mining could impact 244 terrestrial species, including, for example, 1.2 billion individual salamanders, and that the loss of the genetic diversity of these affected species “would have a disproportionately large impact on the total aquatic genetic diversity of the nation.” The EIS also observed that valley fills are strongly associated with violations of water quality standards for selenium, a toxic metal

that bioaccumulates in aquatic life. All 66 selenium violations identified in the EIS were downstream from valley fills, and no other tested sites had selenium violations.

The Corps response to these devastating conclusions was to further weaken its enforcement of the Clean Water Act in Appalachia.

In 2001 and 2002, the federal agencies responsible for regulating mountaintop removal weakened the EIS and did not proceed with necessary scientific studies when they realized that the science that mountaintop removal could not be practiced without devastating the environment and economy of our region. The agencies simply halted the economic study that was crucial to the EIS when it became apparent that the results were not what OSM wanted them to be.

In sum, the EIS was supposed to demonstrate the environmental and economic impacts of large scale strip mining on Appalachia and propose ways to protect the environment and mitigate the impacts of mining on the region. In spite of the fact that the environmental studies that were performed all showed significant harm to the environment, the Corps changed a regulation to make permits easier for mining operators to receive. The Corps ignored the science and turned the EIS on its head.

In June 11, 2009, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Department of Interior issued a joint Memorandum of Understanding to address the environmental impacts of surface mining in the Appalachian states. In this Agreement, OSM and the other agencies recognized that:

“The mountains of Appalachia possess unique biological diversity, forests, and freshwater streams that historically have sustained rich and vibrant American communities [Surface mining] often stresses the natural environment and impacts the health and welfare of surrounding human communities. Streams once used for swimming, fishing, and drinking water have been adversely impacted, and groundwater resources used for drinking water have been contaminated. Some forest lands that sustain water quality and habitat and contribute to the Appalachian way of life have been fragmented or lost.” June 2009 MOU at 1.

The agencies jointly announced an interagency plan that said it was “designed to significantly reduce the harmful environmental consequences of Appalachian surface coal mining operations, while ensuring that future mining remains consistent with federal law.” *Id.* Unfortunately the Corps appears to be failing again in its duty to enforce the law or protect streams. Indeed, only the U.S. EPA, of the three federal agencies responsible for regulating mining in the region, has taken meaningful action to protect our streams or help local communities avoid the environmental impacts of mountaintop removal mining.

Meanwhile, mountaintop removal continues to devastate Appalachia. The Appalachian region is historically one of the poorest in the nation, particularly because the mining industry has cut jobs in order to increase its profit at the expense of the environment and

the law. The law requires protection of waters, and policymakers need valid economic data to assist communities' transition from an economy based on mountaintop removal to less harmful forms of mining and a sustainable economy. As a presidential candidate, Mr. Obama expressed "serious concerns about the environmental implications" of mountaintop mining," saying: "We have to find more environmentally sound ways of mining coal than simply blowing the tops off mountains." It is time for the federal agencies that regulate mountaintop removal to help make the President's commitment a reality.

EPA's Actions

In the past two and a half years, EPA has taken three significant steps to enforce the Clean Water Act relating to mountaintop removal. It entered into an Enhanced Coordination Process (ECP) with the Corps for the issuance of Section 404 permits. It vetoed the Spruce Mine 404 permit. It issued a guidance document on conductivity levels in Appalachian streams. None of these actions should be controversial. Taken together, they accomplish only the minimum required by the Clean Water Act. Indeed, EPA should take much more vigorous action to enforce the Act in the region.

EPA should do much more than it has done so far. It should promulgate a definition of "fill material" that excludes mining waste, mirroring the Corps' definition before the Bush administration changed it to legalize mountaintop removal. Adopting such a regulation would accomplish the goals of the Clean Water Act by assuring our streams may not be used as giant garbage cans for the mining industry's waste. EPA should also promulgate a regulation that follows the science by preventing cumulative impacts. To that end, it should prohibit future surface mining in watersheds where significant disturbance has already occurred. Finally, EPA should adopt a numeric water quality criterion for conductivity and associated ions and require states to place effluent limitations in Section 402 permits regulating discharges of conductivity and associated ions for mountaintop removal mines. Until EPA takes these actions, mountaintop removal operators will continue to violate the Clean Water Act by killing aquatic life in the region's streams, blowing up mountains and filling streams with mining waste.

Arch Coal's Spruce Mine would devastate one of southern West Virginia's most beautiful hollows. Although the industry has tried to foment controversy around EPA's veto of the Spruce mine, that veto was necessary to protect the Nation's waters and was, therefore, required by the Clean Water Act. EPA, as the primary agency responsible for protecting the environment, has ultimate oversight authority under § 404. EPA may prohibit, withdraw, deny or restrict the use or specification of any U.S. waters as a disposal site for fill "whenever" EPA makes the required determination pursuant to § 404(c). 33 U.S.C. § 1344(c).

The construction of the Spruce Mine as authorized by the Corps would bury virtually all of Oldhouse Branch and its tributaries and much of Pigeonroost Branch and its tributaries under excess spoil generated by surface coal mining operations. These discharges would

result in the burial of approximately 6.6 miles of high quality Appalachian headwater streams in a watershed that has already experienced substantial impairment. The loss of the 6.6 miles of high quality Appalachian headwater streams in this watershed would result in a significant loss (over 5.6% of the total stream miles in Headwaters Spruce Fork subwatershed) of valuable wildlife habitat for many species in this watershed. The loss of the 6.6 miles Appalachian streams in this watershed would result in a significant loss (over 5.6% of the total stream miles in Headwaters Spruce Fork subwatershed) of valuable wildlife habitat for many species in this watershed. The mining process would remove 400 to 450 vertical feet from the height of the mountain, or approximately 501 million cubic yards of overburden material. Nearly 391 million cubic yards of spoil would be placed within the mined area and the remaining 110 million cubic yards of excess spoil would be placed in six valley fills.

EPA's veto of the Spruce Mine is well supported and substantively unassailable. EPA exercised its 404(c) authority to veto the permit for discharges into Oldhouse Branch and Pigeonroost Branch and their tributaries because EPA determined these discharges would have unacceptable adverse effects on wildlife both within and downstream from the permit area. For example, EPA found that

Pigeonroost Branch and Oldhouse Branch and their tributaries are some of the last remaining streams within the Headwaters Spruce Fork sub-watershed and the larger Coal River sub-basin that represent —least-disturbed conditions. As such, they perform important hydrologic and biological functions, support diverse and productive biological communities, contribute to prevention of further degradation of downstream waters, and play an important role within the context of the overall Headwaters Spruce Fork sub-watershed and Coal River sub-basin.

On the site of the Spruce No. 1 Mine, EPA determined that the dumping of mining waste would bury “virtually all of Oldhouse Branch and its tributaries and much of Pigeonroost Branch and its tributaries,” resulting in a significant loss of valuable habitat to many species in the watershed. Examining the science and potential effects downstream from the site, EPA found that the mine as authorized would lead to “increased pollutant loadings in Spruce Fork and the Little Coal River,” “loss of macroinvertebrate communities and population shifts to more pollution-tolerant taxa,” and “the extirpation of ecologically important macroinvertebrates.” Additionally,

loss of macroinvertebrate prey populations, combined with increased potential for harmful golden algal blooms and additional exposure to selenium will have an unacceptable adverse effect on the 26 fish species found in Spruce Fork as well as amphibians, reptiles, crayfish, and bird species that depend on aquatic organisms and downstream waters for food or habitat.

As EPA explained, “[b]urial of Pigeonroost Branch and Oldhouse Branch would also result in unacceptable adverse effects on wildlife downstream caused by the removal of

functions performed by the buried resources and by transformation of the buried areas into sources that contribute contaminants to downstream waters.” EPA’s withdrawal of specification for Oldhouse Branch and Pigeonroost Branch and their tributaries was also informed by the fact that the Corps’ permit did not comply with the § 404(b)(1) guidelines. For example, EPA concluded that the dumping of mining waste into those streams would significantly degrade the Nation’s waters because it would “eliminate the entire suite of important physical, chemical and biological functions provided by the streams of Pigeonroost Branch and Oldhouse Branch including maintenance of biologically diverse wildlife habitat and will critically degrade the chemical and biological integrity of downstream waters.” *See* 40 C.F.R. § 230.10(c). EPA recognized that degradation would be particularly significant because it would occur in the context of the long-term, cumulative degradation of streams in the Spruce Fork and Coal River watersheds. Moreover, EPA found that the mine’s proposed mitigation plan would not replace the high quality aquatic resources that would be destroyed by the Spruce No. 1 Mine, in part because the company’s plan failed to “adequately account for the quality and function of the impacted resources.”

EPA has also released an interim guidance document on conductivity. Construction of valley fills causes an increase in conductivity and total dissolved solids (TDS) in receiving waters downstream of such discharges. Elevated conductivity can have a toxic effect because the ions, regardless of type, can overwhelm the respiratory system and other physiological processes leading to impaired breathing, dehydration, and decreased survival or reproduction. Thus, native Appalachian taxa adapted to naturally dilute streams can be harmed by elevated conductivity for these physiological reasons. The burial of our streams leads to discharges of TDS and selenium, which results in unacceptable adverse effects on wildlife in downstream waters. Increased salinity levels lead to loss of macroinvertebrate communities and population shifts to more pollution-tolerant taxa, specifically the extirpation of ecologically important macroinvertebrates. Through the loss of stream macroinvertebrate and salamander communities, there will be, in turn, substantial effects to both aquatic and terrestrial vertebrate populations that rely on these communities as a food source.

It is well recognized that the loss of a certain number of individuals of a species in a local ecological community can be tolerated, provided that the species continues to reproduce to replace lost individuals. However, when species are impacted by both acute stressors (e.g., food web changes, algal blooms) and exposure to reproductive toxicants, there is an increased risk of the loss of an entire species within an area. The loss of macroinvertebrate prey populations, increased risk of harmful golden algal blooms, and additional exposure to selenium has an unacceptable adverse effect on Appalachian streams.

All of the peer reviewed scientific literature reflects a growing consensus of the importance of headwater streams; a growing concern about the adverse ecological effects of mountaintop removal mining; and concern that impacted streams cannot easily be recreated or replaced. Scores of recent articles and studies point to the role headwater streams play in the transport of water, sediments, organic matter, nutrients, and organisms

to downstream environments; their use by organisms for spawning or refugia; and their contribution to regional biodiversity. There are no contrary peer reviewed studies. Additionally, destruction or modification of headwater streams has been shown to affect the integrity of downstream waters, in part through changes in hydrology, chemistry and stream biota. The literature specifically documenting the effects of mountaintop removal mining has also grown, and additional studies have increased EPA's understanding of the effects of elevated levels of total dissolved solids (TDS) discharged through mining operations on downstream aquatic ecosystems (Pond et al. 2008, Simmons et al. 2008, Palmer et al. 2010, Fritz et al. 2010).

The science is impressive and undisputed. Any politician or regulator that supports mountaintop removal must confront this voluminous and growing peer-reviewed body of scientific literature from University professors and agency scientists. None have done so -- except to ignore or dismiss the science without providing meaningful reasons.

Cumulative Impacts

Section 404 of the Clean Water Act requires that the Corps and EPA determine that neither individual nor cumulative impacts from an activity will significantly degrade streams. Again, the Corps utterly fails to discharge its duty to assure that cumulative impacts are insignificant. For example, more than 11.5 percent of the land area in the region encompassing eastern Kentucky, southern West Virginia, western Virginia, and areas of eastern Tennessee is being impacted by mountaintop removal. As a result of this destruction of headwater streams, mountaintop removal mines cumulatively devastate aquatic ecosystem. The Corps has not attempted to analyze and minimize the environmental harm of past, present, and reasonably foreseeable future surface mining operations in Appalachia. These impacts include total elimination of all aquatic life in buried streams, negative impacts on the proper functioning of aquatic ecosystems, including fisheries located downstream of mountaintop removal mining operations, and impairment of the nutrient cycling function of headwater streams.

For example, in the Coal River watershed in West Virginia, existing and pending surface mining permits cover 12.8 % of the watershed. In the Laurel Creek watershed Coal River, existing and pending surface mining permits cover 28.6 % of the watershed. Surface mining permits, including valley fills, cover 14.5% of first order streams and 12 % of all streams in Coal River and surface mining permits including valley fills cover 37.3% of first order streams in Laurel Creek and 27.9% of all streams.

The United States Fish and Wildlife Service recognize that mountaintop removal mining results in forest loss and fragmentation that is significant not only within the project area, but also regionally and nationally. In particular, the mines cause a fundamental change in the environment from forestland to grassland habitat, cause significant adverse impacts to the affected species, cause loss and/or reduced quality of biodiversity, and cause loss of bird, invertebrate, amphibian, and mammalian habitat.

When Congress passed the Clean Water Act, it intended to protect the environment and citizens of the Nation. In Central Appalachia, however, the Corps has used the Act as a perverse tool to justify the very harm that the Congress sought to prevent. The members of Congress who voted to pass the Clean Water Act could not have imagined the cumulative destruction that would be visited on our region by the complete failure of the regulators to enforce the Act.

Economics

Mountaintop removal is also devastating the economy of the coal bearing regions of Appalachia. In 1948, there were 125,669 coal-mining jobs in West Virginia and 168,589,033 tons of coal mined. In 1978, there were still 62,982 coal mining jobs in West Virginia with only 84,696,048 tons mined. By 2010, however, only 20,452 of these jobs remained despite the fact that coal production had again risen to 144,017,758 tons mined.

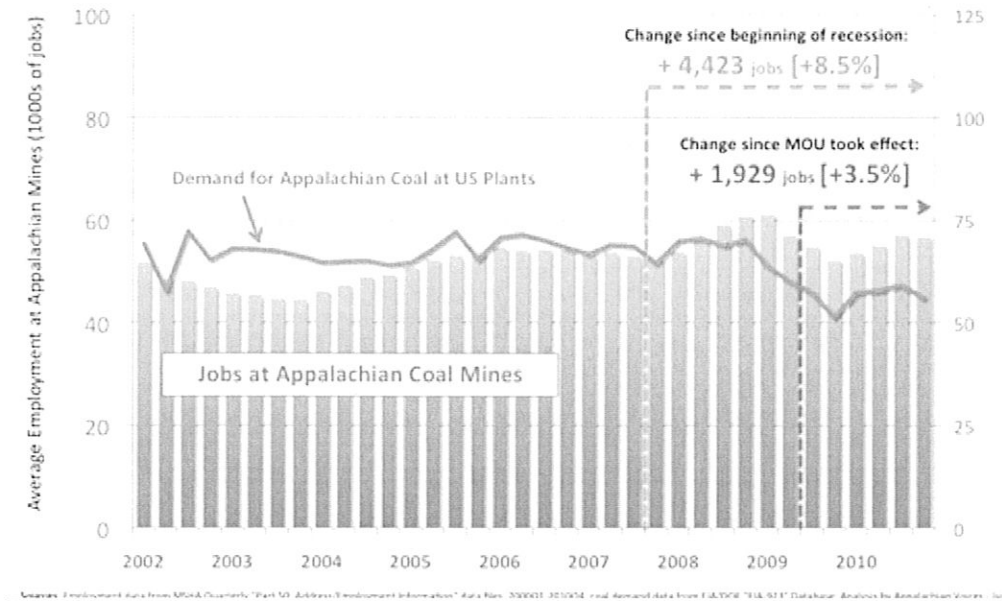
So, although coal production today is roughly the same as it was sixty years ago, coal-mining jobs have decreased by approximately 80%. This job loss has been driven not by environmental production or decreased production, but by coal operators themselves who have replaced workers with machines and explosives. McDowell County, which has produced more coal than any other county in the Nation, is now one of the poorest counties in the United States. Far from being an economic asset to communities, mountaintop removal devastates economies wherever it occurs.

Mountaintop removal destroys coal mining jobs – as well as mountains. Underground mines, on the other hand, create 52% more job-hours than mountaintop removal mines for every ton they produce and employ nearly two thirds of the miners in Central Appalachia while producing just over half of the coal. Although the overall production from mountaintop removal mines declined by 25% between 2007 and 2010, employment at Central Appalachian coal mines increased. Claims by coal companies that more stringent permitting of mountaintop removal is causing an economic crisis in Central Appalachia are wrong. Since 2007, as production in Central Appalachia has shifted away from mountaintop removal and back toward underground mining, the increase in employment at underground mines has more than offset declines at other types of mines. Although mountaintop removal may benefit the bottom lines of big coal operators, it does not increase the number of coal mining jobs.

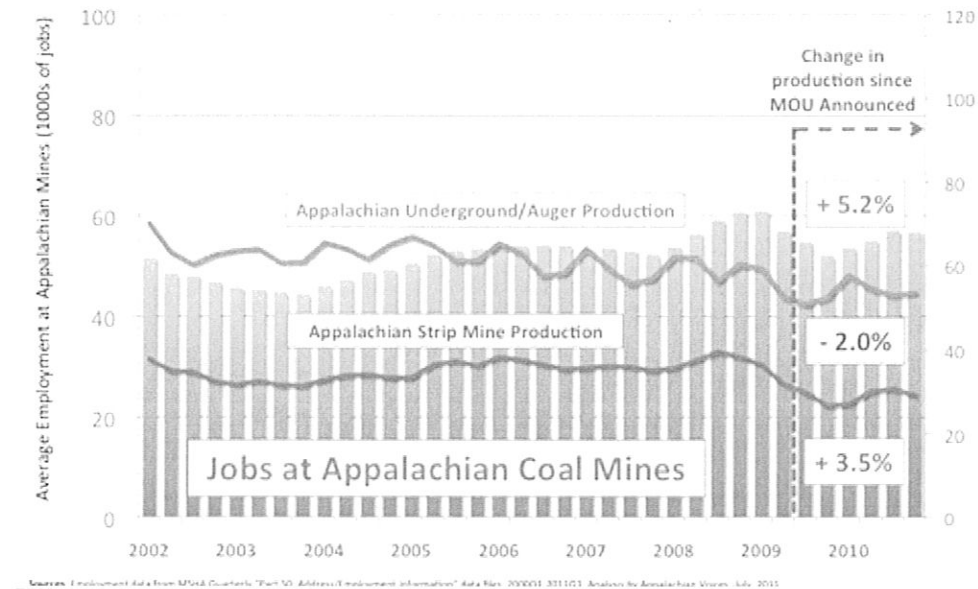
Because mountaintop removal mining replaces miners with explosives and giant machines, its demise would actually benefit workers in our region. We will mine the coal in central and northern Appalachia because our power plants require it. Importing western coal is not really an option in our region because of transportation bottlenecks, cost of transportation and the fact that many of our plants are built to burn high BTU eastern coal. When mountaintop removal is stopped, the production will be replaced with less destructive forms of mining that will actually employ more miners or with natural gas produced in the region.

The data available support those conclusions. Since mountaintop removal permits have been slowed by litigation and EPA regulation, mining jobs have actually increased in the region.

Jobs at Appalachian coal mines are up since start of recession -- and since EPA began stricter review of mountaintop removal permits -- despite falling demand

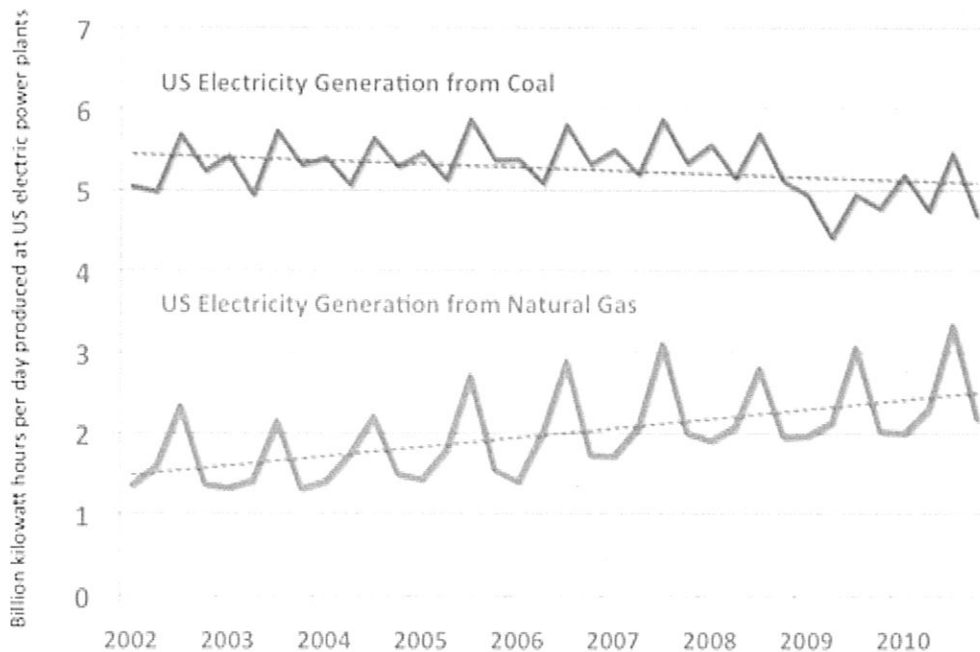


A shift from strip to underground mining is partly responsible for the 3.5% increase in jobs at Appalachian mines since the EPA began more stringent permit reviews



Data also show that newly available natural gas, not environmental regulation, is reducing the demand for coal.

Declining Appalachian coal production is driven by greater reliance on natural gas for electricity generation



Mountaintop removal permanently destroys the forest ecosystem of the region. Central Appalachia holds the most productive and diverse temperate hardwood forest in the world. Properly managed, the forests could provide good timber jobs for generations. Mountaintop removal lays to waste those jobs. Similarly, once a mountain is torn down, it can no longer support windmills that could be built on the ridges.

Mountaintop removal coal mining costs state budgets more than it generates. Recent studies concluded that coal mining costs Kentucky and West Virginia taxpayers more than it brings into the state – a net loss of more than \$100 million annually in Kentucky. The costs include: increased road expenditures, operating mining-specific health and safety systems, supporting training and research and development for the industry, and various tax-breaks and subsidies. This estimate does not include healthcare costs, loss of home values, and the need for water treatment.

One of the most common arguments in favor of mountaintop removal mining is that it creates much-needed jobs in economically depressed areas. However, a recently published paper by Woods and Gordon, *Mountaintop removal and Job Creation: Exploring the Relationship Using Spatial Regression*, found no evidence supporting the suggestion that mountaintop removal contributes positively to nearby communities' employment. In fact, the authors concluded that neither a rise nor decline in employment

was found near mountaintop removal mines. The lack of a statistically significant relationship between mountaintop removal and mining employment shows that reliance on mountaintop removal coal mining for job growth is unsupported. Furthermore, the absence of any statistical relationship between mountaintop removal and job creation does not support the industry's claim that coal mining plays a positive role in developing local economies.

Public Health

In addition to the economic toll mountaintop removal takes on the region, there are significant public health impacts. Recent scientific research shows that human cost to people living near mountaintop removal mines is extremely high.

For example, research shows that residents of coal-mining counties are much more likely than their counterparts to be unemployed, receive fewer years of education, and live shorter lives. Indeed, the imprint of coal mining on people's lives can be traced to before birth. A paper by Ahern *et al.*, *The association between mountaintop mining and birth defects among live births in central Appalachia, 1996–2003*, released in May of this year investigated the correlation between a mother's place of residence during pregnancy and the incidence of congenital birth defects. The study investigated the incidence of birth defects in counties in Kentucky, Tennessee, Virginia, and West Virginia with mountaintop removal mining, other types of mining, and no mining activity.

The authors concluded that even after controlling for a multitude of covariates such as the mother's age, race, education level, access to prenatal care, smoking and drinking habits, there was a statistically significantly higher rate of birth defects in mountaintop mining areas versus other mining and non-mining areas. That is consistent with previous research showing greater surface, air, and water disturbance specific to surface mining areas where mountaintop mining occurs. Given the previous research on the toxic chemical agents used or created in the extraction, processing, and transportation of coal, researchers find it likely that these chemicals are also agents in the etiology of birth defects.

Infant birth weight is another indicator of overall health concerns in regions of Appalachia where mountaintop removal mining is prevalent. A study entitled *Residence in Coal-Mining Areas and Low-Birth-Weight Outcomes* published in January of this year finds a significant relationship between low birth weight and mother's residence in coal mining areas in West Virginia. Authors Ahern *et al.*'s research revealed that living in areas with high levels of coal mining elevated the odds of a low-birth-weight infant by 16%, and by 14% in areas with lower mining levels, relative to counties with no coal mining. Even after adjusting for covariates, the persistence of a mining effect on low-birth-weight outcomes suggests an environmental effect resulting from pollution and mining activities. Of the various forms of mining, the study finds that mountaintop removal causes the greatest amount of harm because of its significant air particulate exposure. Other similar studies have found support for the idea that adverse pregnancy outcomes may result from maternal exposure to airborne pollutants.

In addition to elevated rates of infant health problems, there is also substantial evidence of elevated mortality in adult individuals living in coal-mining areas. In April of 2010, Hitt and Hendryx publish a paper, *Ecological Integrity of Streams Related to Human Cancer Mortality Rates*, which examines the significant relationships between increasing coal mining, decreasing ecological integrity, and increasing cancer mortality. Although smoking, poverty, and urbanization were significantly related to total cancer mortality, they did not fully explain the observed relationship between ecological integrity and cancer. These results suggest a causal link between coal mining and cancer mortality. This contention is supported by prior research demonstrating that coal mining and processing may increase carcinogenic contamination of air and water in nearby area.

Another study published in 2009 entitled *Mortality in Appalachian Coal Mining Regions: The Value of Statistical Life Lost*, translated this elevated mortality into economic terms. Authors Hedryx and Ahern calculated the statistical value of life lost due to elevated mortality rates in Appalachian coal mining areas and compared it to the economic benefits of the coal mining industry. The paper concludes that the coal industry costs states billions of dollars more than it brings in as revenue. While the economic benefit of the coal industry was estimated at \$8.088 billion, discounting the value of statistical life costs into the future (accounting for estimate future earnings etc.) resulted in excess costs relative to benefits with an estimate of nearly forty two billion dollars. The human cost of Appalachian coal mining, therefore, vastly outweighs its perceived economic benefits.

One important trend during their research showed that the highest mortality rates were detected in areas with the highest levels of mining. Also worth noting was the fact that elevated adjusted mortality occurred in both males *and* females, suggesting that the effects were not due to occupational exposure, as nearly all coal miners are men. Rather, the illnesses were consistent with exposure to water and air pollution from mining activities. Previous research that examined specific forms of mortality in coal mining areas has found that chronic forms of heart, respiratory, and kidney disease, as well as lung cancer, remained elevated after adjusting for socioeconomic and behavioral factors.

Conclusion

Finally, I would like to take this opportunity to invite members of this Subcommittee and the full Committee and its staff to travel to West Virginia to witness the devastation caused by mountaintop removal to help you appreciate the incalculable harm that OSM's failure to enforce the Act has done to our region. We would be pleased to provide flyovers of mountaintop removal area and to arrange meetings with community members whose lives and property are severely impacted by the illegal mountaintop removal mines that the Corps refuses to regulate.

Joe Lovett
Executive Director
Appalachian Center for the Economy and the Environment

Executive Director Joe Lovett, a founder of the Appalachian Center, has been a catalyst for focusing local and national attention on the devastation caused by mountaintop removal coal mining. He was graduated from the University of Pennsylvania School of Law in 1995 and served as a law clerk to the Chief Judge of the United States District Court for the Southern District of West Virginia. He has served as counsel in precedent setting legal challenges to mountaintop removal: Bragg v Robertson and Kentuckians for the Commonwealth v Rivenbaugh, and through additional legal challenges added millions of dollars to the West Virginia Coal Mining Special Reclamation Fund. In a nationally precedent setting case, he succeeded in stopping the US Environmental Protection Agency from illegally weakening a central portion of the Clean Water Act in West Virginia (the anti-degradation provisions of the state and federal water quality standards).

Committee on Oversight and Government Reform
Witness Disclosure Requirement – "Truth in Testimony"
Required by House Rule XI, Clause 2(g)(5)

Name: Joe Lovett

1. Please list any federal grants or contracts (including subgrants or subcontracts) you have received since October 1, 2008. Include the source and amount of each grant or contract.

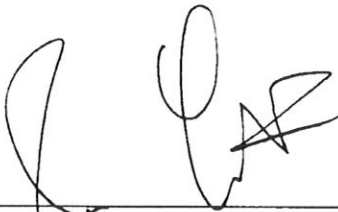
None.

2. Please list any entity you are testifying on behalf of and briefly describe your relationship with these entities.

The Appalachian Center for the Economy and the Environment. I am the Executive Director of that organization.

3. Please list any federal grants or contracts (including subgrants or subcontracts) received since October 1, 2008, by the entity(ies) you listed above. Include the source and amount of each grant or contract.

None.



I certify that the above information is true and correct.
Signature:

7/13/11

Date:
