

MOUNTAINTOP REMOVAL MINING

Statement of Issue

Mountaintop removal coal mining is destroying the landscape, waterways, quality of life, and economic viability of Southwest Virginia, the most biologically rich region of the Commonwealth. The process uses massive explosive blasts to destroy mountain peaks and ridges to access coal seams, reducing the height of mined mountains by hundreds of feet and creating a barren and unproductive landscape unable to support native vegetation. The resulting rubble is pushed into the neighboring valleys, permanently burying headwater streams with what the industry terms “valley fills,” disrupting natural stream flows and poisoning downstream waterways.

This destruction of our state’s mountains has emerged as a top environmental concern of Virginians, now that citizens across the state have become aware of the practice and the extent of the damage, with widespread opposition to the practice throughout the state.¹

Background

The human and ecological costs of strip mining in Virginia, most of which involves mountaintop removal, are extremely high. To date, strip mines have destroyed 156,000 acres of mountainous terrain in the state.² An EPA report also found that, in just the 10 years between 1992 and 2002, 1,200 miles of Appalachian streams were destroyed—either buried by valley fills or mined-over—at an average rate of 120 stream miles each year.³ In Virginia, 151 miles of streams were destroyed in this period alone.⁴ Across the region, more than 500 mountains have been destroyed, with 67 of these in Virginia.⁵

Mountaintop removal mines can cover thousands of acres. Their impacts on humans and wildlife, however, extend far beyond the mine sites. The water downstream from valley fills is polluted

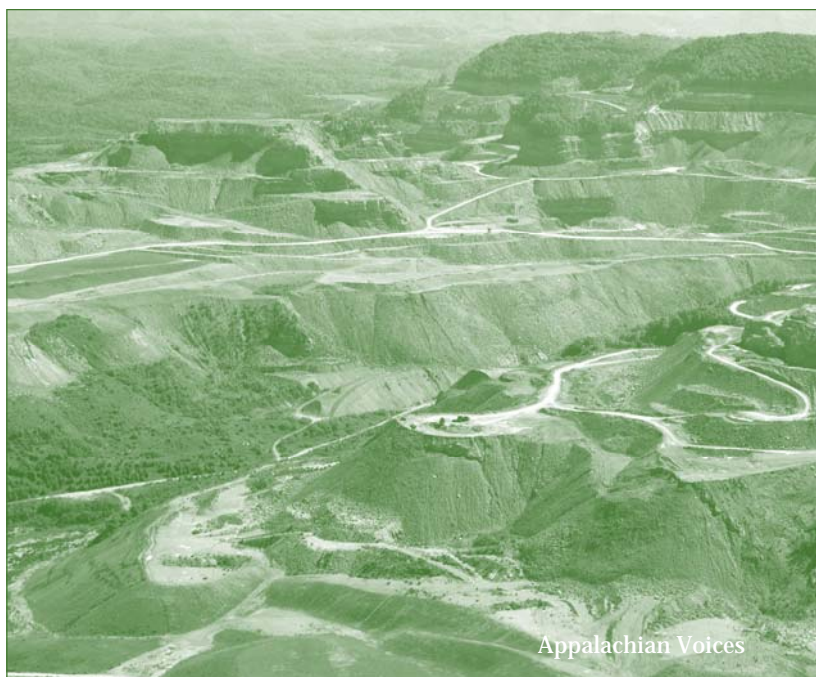
with both toxic metals and excessive sediment, impacting both human communities and aquatic life downstream, and the permanent destruction and fragmentation of forests has a profound effect on terrestrial wildlife.⁶

Human Impacts

Residents of the coalfields must endure frequent blasting, contaminated drinking water, and severe flooding. The mountains and creeks destroyed by the practice—where residents have hunted, fished, hiked, and swum for generations—are integral to the area’s way of life and cultural heritage.

Residents also suffer from dramatically elevated occurrences of birth defects, health problems—such as heart, lung, and kidney disease—and premature death.⁷ Moreover, far from being an economic boon, strip mining is closely associated with economic distress. The Appalachian Regional Commission found that “current and persistent economic distress within the Central Appalachian Region has been associated with employment in the mining industry, particularly coal mining.”⁸

In fact, new studies demonstrate that the strictly economic costs imposed by mining exceed its benefits. A 2009 study focused on Kentucky found that state expenditures supporting coal mining exceeded state revenue from mining by over \$100 million annually. A peer-reviewed 2009 West Virginia University study comparing counties across Appalachia found a strong correlation between coal mining and a host of negative socioeconomic



Appalachian Voices

MOUNTAINTOP REMOVAL RECOMMENDATIONS

The state's current policy allowing and subsidizing mountaintop removal permanently desecrates a rich and irreplaceable landscape that is treasured by residents and visitors alike, destroys the region's economic viability, and impedes the development of economic and energy alternatives.

- Valley fills are currently allowed due to a loophole in the regulations enforcing the federal Clean Water Act. The Virginia General Assembly should protect the state's mountains and waterways by enacting legislation to ban the dumping of mining waste in intermittent, perennial, or ephemeral streams or other waters of the Commonwealth.
- Virginia's taxpayers directly subsidize mountaintop removal through approximately \$44.5 million in corporate tax breaks provided by two Virginia statutes. Virginia Code sections 58.1-433.1 and 58.1-439.2 provide subsidies to coal companies and utilities for extraction and consumption of Virginia coal. If used effectively to support job creation in the coalfields, these funds could be a tremendous boon to employment and economic development in the region. The General Assembly should rededicate these funds to support the development of a vibrant and sustainable regional economy in Southwest Virginia. (Please see A Coalfields Job Credit in this Briefing Book.)

indicators, including elevated mortality rates. The study found that the value of the lives lost throughout the region due to mining impacts (the value of statistical life lost) vastly outweighs coal's economic contribution to the region. Of course, mountaintop removal also exacts great economic costs not considered in either of these studies, such as increased healthcare expenses and the value of damaged waterways, lost recreational opportunities, and obliterated viewsheds.

The Virginia General Assembly should protect the state's mountains and waterways by enacting legislation to ban the dumping of mining waste in our streams and waterways.

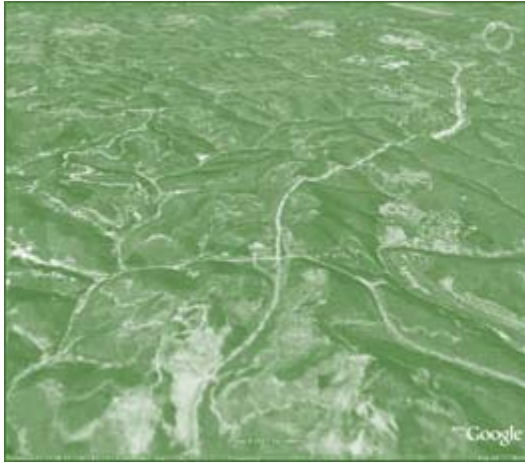
Finally, mountaintop removal compromises the region's future by greatly diminishing the desirability of the region as a place to live or to locate small businesses and less destructive industries.

Wildlife Impacts

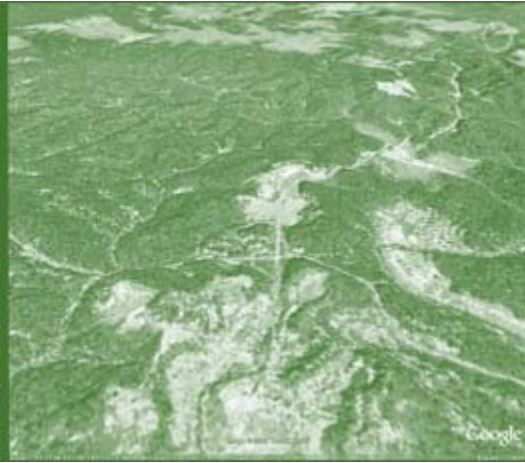
The Appalachian Plateau, including Southwest Virginia, is one of the most biologically diverse regions in the temperate world. Mountaintop removal eliminates native forest and creates a barren landscape unsuitable for their re-growth. This permanent loss of forest—more than one million acres across Central Appalachia—and the fragmentation of an area several times this size—represents a disastrous loss of habitat.⁹

While habitat losses on the mine sites pose the most obvious threat to wildlife, contamination of downstream waters from valley fills and mine runoff has severe impacts on aquatic life, and the affected drainages are among the most biologically diverse freshwater systems in the world. Selenium, one of dozens of toxic metals leached into streams from valley fills, is found downstream of mountaintop removal sites in concentrations far in excess of EPA standards, causing severe deformities in fish.¹⁰ One study showed that mayflies, which account for about half of insects in the Appalachian Plateau's headwater streams, had completely disappeared downstream from some valley fills, a loss with potentially catastrophic

Before Mountaintop Mining



After Mountaintop Mining



consequences for the entire downstream food web and the integrity of entire river systems.¹¹

Mining Reform and Virginia's Energy Future

While coal continues to play an important role in Virginia's energy mix, the toll mountaintop removal exacts on our communities, land, and waterways is unacceptable. Moreover, Virginia's coal production and employment are in a precipitous decline.

In 2009, Virginia coal production was down 54 percent from 1990 levels. Mining employment in the state has followed a similar downward trajectory, falling 57 percent - to fewer than 4,600 jobs - in the same period. These declines are expected to continue, with the Energy Information Administration predicting a further drop in central Appalachian coal production of 43 percent by 2020.¹² Southwest Virginia's economic future clearly depends on transitioning from coal to more sustainable industries.

Ending mountaintop removal and valley fills is a critical first step in this direction. The practice is not only rapidly undermining the region's future economic viability; by using explosives and large earth-moving machines to extract coal, it employs many fewer miners than other methods. On the other hand, proposals for wind energy development in the region highlight the promise of renewable energy investment. And a 2009 report by the Appalachian Regional Commission discusses the vast untapped energy efficiency potential in the region and the potential to generate over 77,000

jobs across Appalachia from cost-effective efficiency investments.¹³

While most Virginians consume some electricity generated from mountaintop removal coal, coal makes up less than half of Virginia's energy mix and only approximately a third of the coal extracted in Virginia is mined through mountaintop removal or other strip mining methods. The state, moreover, is a major exporter of coal. Therefore, coal mined using other methods can immediately replace mountaintop removal coal. The state's vast untapped energy efficiency and renewable energy potential can be brought online concurrently, with great benefits to the state's economy and environment.

1. Survey Findings on Mountaintop Removal Strip Mining by Lake Research Partners and Bellweather Research, August, 2011, available at: http://www.appalmad.org/?page_id=307

2. Extent of Mountaintop Mining in Appalachia - 2009. Available at: <http://ilovemountains.org/reclamation-fail/details.php>

3. Draft Programmatic Environmental Impact Statement on Mountaintop Mining/Valley Fills in Appalachia - 2003, available at: <http://www.epa.gov/region3/mtntop/eis2003.htm>

4. Ibid.

5. Extent of Mountaintop Mining in Appalachia - 2009. Available at: <http://ilovemountains.org/reclamation-fail/details.php>

6. See Palmer, M.A. et al (2010). Mountaintop Mining Consequences, Science, 327, 148-149, available at: <http://www.sciencemag.org/content/327/5962/148.summary>

7. Ibid., Ahern, M.M. et al (2011). The Association Between Mountaintop Mining and Birth Defects Among Live Births in Central Appalachia, 1996-2003, Environ. Res., available at: www.kftc.org/press-room/.../MTM-birth%20defects%20paper.pdf

8. Trends in National and Regional Economic Distress: 1960-2000, Appalachian Regional Commission (2005), available at: http://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=28

9. Extent of Mountaintop Mining in Appalachia - 2009. Available at: <http://ilovemountains.org/reclamation-fail/details.php>

10. See Palmer, M.A. et al (2010). Mountaintop Mining Consequences, Science, 327, 148-149, available at: <http://www.sciencemag.org/content/327/5962/148.summary>

11. Pond, Gregory J. et al (2008). Downstream Effects of Mountaintop Coal Mining, Journal of the North American Benthological Society, 27, 717-737.

12. 2011 Annual Energy Outlook, U.S. Energy Information Administration, Coal Production by Region and Type, Reference case, available at: <http://205.254.135.24/oiaf/aeo/tablebrowser/#release=AEO2011&subject=0-AEO2011&table=95-AEO2011®ion=0-0&cases=ref2011-d020911a>

13. Energy Efficiency in Appalachia, Appalachian Regional Commission (2009), available at: http://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=70

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