Leading scientists oppose valley fills and mountaintop mining.

"Mountaintop Mining Consequences,"

a scientific study, was recently published in *Science*, an international journal read by more than 1 million people. *Science* publishes only peer-reviewed articles, which undergo intense review by a wide panel of scientists and experts. Scientists, industries and governments consider such articles the most objective source of information about topics. 12 scientists, including some from the National Academies of Science, authored the article.

Data Sources

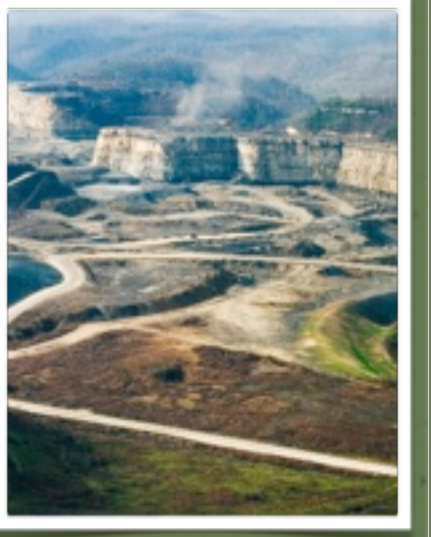
- Current peer-reviewed articles and reports published about the topic
- Water quality data from West Virginia's Department of Environmental Protection

Methods

The scientists compiled results from articles and reports published about mountaintop mining/valley fill (MTM/VF) effects. They then compared the amount of heavy metals and toxic chemicals found in samples taken from water flowing both directly under valley fills and in unmined areas to levels considered safe for human consumption. These safety levels are set by the U.S. Environmental Protection Agency. As MTM/VF practices are similar throughout the Central Appalachian region, the authors concluded that all findings can be applied to any area where MTM/VF occurs.

"Regulators should no longer ignore rigorous science. MTM/VF permits should not be granted unless new methods can be subjected to rigorous peer review and shown to remedy these problems."

-Quote from Consequences of Mountaintop Mining Article



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Scientific Findings

Human Health

The health of people living in coal mining communities declines as a result of exposure to mining dust and water contaminated by mining. Rates of premature death, chronic obstructive pulmonary disease (COPD), hypertension hospitalization, lung cancer, and chronic heart, lung and kidney diseases for both men and women increase as coal production increases, even after adjusting for other health-related factors such as socioeconomic status.

Water

Groundwater wells are ruined. Toxic levels of several mine-derived chemicals were found in wells.

Streams are buried.

Downstream streams and rivers are adversely affected by unsafe levels of selenium, manganese, aluminum, iron and other mine-derived chemicals and metals. Mutated, toxic fish have also been found.

Weather & Climate

The number and severity of floods is increased.

Functional forests are destroyed. Even decades later, re-growth of trees and vegetation is limited. The ability for the land to sequester carbon decreases.

Biodiversity declines.

Mitigation Efforts

Waterways are permanently altered. Vegetation does not re-grow. Efforts to restore streams and replant forests, approved by the Army Corps of Engineers during mine permitting process, do not work. Authors point out that the Army Corps has testified that they do not know if these efforts are successful at restoring the ecosystem.

Conclusion

Mountaintop mining / valley fill practices should be stopped.

A list of peer-reviewed articles cited in "Mountaintop Mining Consequences"

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