

PREVENTING HARMS FROM METALS MINING

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WHY IT MATTERS

Virginia has a **gold-pyrite belt** that extends from Fairfax to Halifax Counties¹, and contains minerals including gold, copper, zinc, and lead. Small-scale mining for those minerals occurred in the 19th and early 20th centuries and is now evidenced by hundreds of abandoned or unreclaimed mines along the geological belt. **Mineral or metal mining** can be a very toxic process both during processing and in storage and waste operations.

Currently, a large-scale version of this toxic industry is trying to move forward in the Commonwealth before a comprehensive regulatory framework and sufficient financial assurances are in place. This could put the public health and drinking water of millions of downstream residents at risk.

Metals mining is a land-intensive process and is the nation's #1 toxic pollution source.² Mining procedures can result in perpetual acid mine drainage,³ catastrophic waste containment failures,⁴ destruction of cultural heritage, and the devastation of local economies as a result of the boom-and-bust cycle of the industry.

Virginia must be protected from the potential harms of the large-scale metals mining industry. This must include supporting communities, namely rural and historically Black communities, most at risk from potential mining contamination and preserving our precious water resources and agricultural lands.

CURRENT LANDSCAPE

A junior mining company has been prospecting near Virginia's gold-pyrite belt for several years,⁵ and has announced "high grade" findings.⁶ These prospecting efforts were made public after community members inadvertently learned of the exploratory drilling occurring in Buckingham County. As there is currently no permitting or notification requirement for exploratory drilling for mineral mining, Virginia communities may not know of prospecting happening elsewhere. Expanded exploration efforts for copper have also recently been announced, but not specific locations.⁷

In response to ongoing gold prospecting, proactive legislation was passed in 2022 to require the study of the effects of gold mining on the Commonwealth.⁸ That study, conducted by the National Academy of Sciences, produced the report "Potential Impacts of Gold Mining in Virginia," and highlighted many threats from gold mining: cyanide contamination, perpetual acid mine drainage, and catastrophic waste containment failures.⁹ Legislation to prohibit the use of cyanide in mineral mining and processing passed unanimously in 2024, eliminating one potential threat to Virginia's water and environment.¹⁰

Virginia's current mineral mining regulations are not designed to address modern-day industrial base and precious metals mining. Rather, they focus on the majority of active non-metals mining permits – sand, gravel, and stone aggregates, which involve distinctly different processing

methods, and do not have the same toxicity impacts.

The gold-pyrite belt intersects innumerable environmental justice communities often overburdened with existing pollution and the drinking water systems for 3.2 million people downstream of the belt.^{11,12,13} The belt crosses the James River, which brings millions of dollars into Virginia's economy from commercial fishing and attracts over 7 million visitors annually.¹⁴

As the Commonwealth works to safeguard our watersheds and agricultural lands, the introduction of a new significant source of pollution – industrial metals mining – threatens the viability of those efforts. Additionally, hundreds of historic metal mines lay abandoned across Virginia's landscape.¹⁵ The cost to taxpayers of reclaiming these abandoned sites is an economic burden and the negative health and environmental impacts of not reclaiming these sites are dangerous.¹⁶

OPPORTUNITIES

To protect people and the Commonwealth's natural resources, specifically its rivers, streams, and agricultural lands, Virginia must put in place an effective regulatory framework for mining metals.

While the Commonwealth exercises due diligence in reviewing outdated and insufficient regulations, it should implement a 'pause' on permitting any new metals mining projects. The granting of permits for the mining of gold, copper, lead, or zinc, for example, without sufficient knowledge of project impacts, or with deficient regulatory oversight of impacts is inappropriate given the potential environmental, human health, and economic harms.

To create an effective regulatory framework, the Commonwealth must seek a broad analysis of existing metals mining regulations – not limited to just one commercial product. The review should engage environmental, health, and energy state agencies. As the threat of large-scale mining is statewide, and would have both short- and long-term impacts, existing bonding, reclamation, closure, and monitoring regulations must also be comprehensively evaluated and updated.

Any review processes must include robust public engagement and education. Economic, human health, and environmental implications of metals mining and reclamation should be part of all evaluations. To increase public awareness, prospecting companies who are performing drilling operations should be required to notify county officials and nearby residents.

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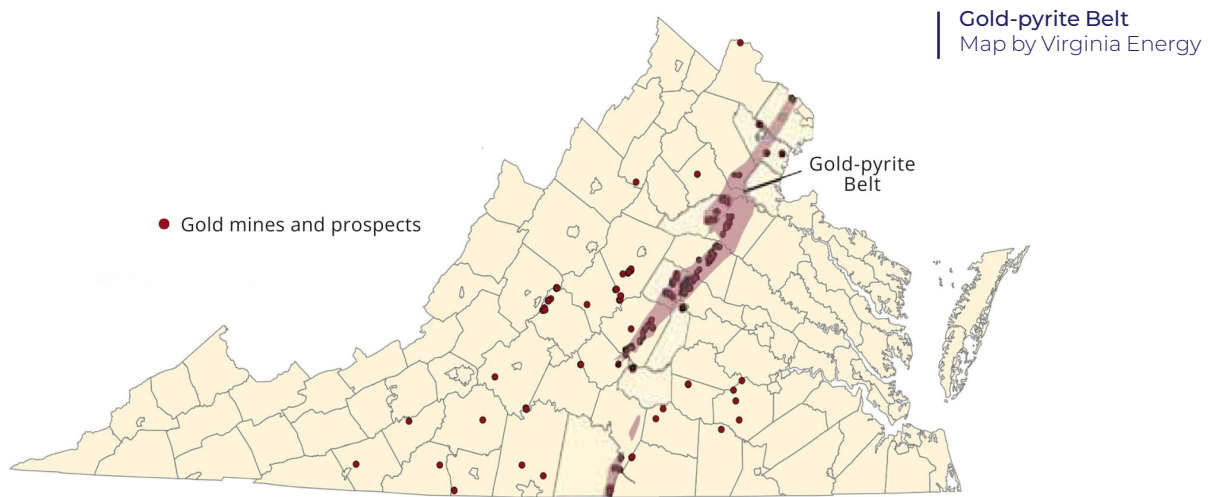
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TOP TAKEAWAYS

There are currently no regulations for large-scale mineral or metals mining in Virginia; implementation of a regulatory framework that is comprehensive and includes bonding, reclamation, closure, and monitoring requirements is needed before permitting any new metals mining projects.

Large-scale mineral or metals mining can use toxic materials in processing, and the impacts of toxic substances on Virginia's water resources should be evaluated before permitting any new metals mining projects.

Prospecting companies who are performing drilling operations should be required to notify county officials and nearby residents.



ENDNOTES

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