



THE CASE FOR REVISING FEDERAL HARDROCK MINING RULES

The August 5, 2015 Gold King Mine disaster in Colorado has renewed interest in reforming our nation's outdated oversight of hardrock mining (mostly metals like gold and copper) in order to clean up old mines. We must also ensure modern mines do not pollute our nation's increasingly precious water resources or harm important ecological or cultural resources.¹

In addition to an update of the antiquated 1872 Mining Law,² we need to modernize the mining regulations under our current public lands laws that govern mining on lands managed by the Forest Service and Bureau of Land Management -- the Federal Land Policy and Management Act (FLPMA) and the National Forest Management Act (NFMA).

The metals mining industry is the single largest source of toxic waste and one of the most environmentally destructive industries in the country.³ Today's mining operations literally replace mountains with mile-wide pits, and treat excavated ore with huge quantities of toxic chemicals such as cyanide and sulfuric acid.

Unfortunately, the rules governing hardrock mining on public lands have not been meaningfully revised since they were originally enacted in 1980. In the meantime, as modern mining practices have enabled the excavation of lower and lower grades of ore, the quantities of waste generated by these operations have increased. Producing 1 ounce of gold now generates more than 80 tons of mining waste.

The mining industry has increasingly failed to contain the waste it generates. Analysis of all mining waste containment failures since 1910 shows they are increasing in frequency and severity -- and will continue to do so unless practices change.⁴ The lesson of Colorado's Gold King, Brazil's Germano,⁵ and British Columbia's Mount Polley⁶ -- all mine disasters within the last year and a half -- is that catastrophes can happen anywhere without proper protections.

The Environmental Protection Agency (EPA) estimates that 40 percent of the headwaters of watersheds in the western United States are contaminated by mining.⁷ To protect our nation's waters from future toxic mine waste disasters, we need an update to our mining regulations to create modern performance, reclamation, and enforcement standards.

New Rules for 21st Century Mining

Hardrock mining rules for public lands fail to adequately protect communities and the environment from the negative impacts of mining.⁸ Loopholes and outdated regulations have allowed the mining industry to operate in ways that impact precious western water resources in a time of water scarcity. It is time for new rules that keep mining pollution in check.

Mining on our public lands should follow common sense rules that protect the people's resources from mining's potentially destructive impacts. In 2000, the Clinton Administration enacted new mining rules towards this end, only to have the Bush Administration overturn most of them immediately upon taking office.⁹

Updated mining rules for our public lands should include:

- **Authority for land managers to prevent mines that would result in lasting water pollution or cause substantial harm to special places and cultural resources.** On BLM lands, this requires a meaningful definition of "unnecessary and undue degradation" in FLPMA that grants discretion to deny mines that would generate water pollution that requires treatment in perpetuity or other serious impacts to environmental or cultural resources.
- **Detailed performance standards for hardrock mining operations.** Miners should meet strict performance standards throughout the life of the mine -- from pre-construction to closure. These standards require mines to prioritize mine practices that prevent pollution (e.g., source control) over those that mitigate the impacts (e.g., relying on water treatment). Mines must minimize



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disturbance to fish, wildlife, flora, and vegetation to the greatest extent possible. Operators should also follow specific design and operational standards for mine waste facilities (e.g., tailings impoundments) to reduce the risk of failure.

- **Reclamation standards that restore pre-mining hydrological conditions to the maximum extent feasible, and rehabilitate fish and wildlife habitat.** These standards prioritize the backfilling of underground tunnels with mine waste to reduce the mine's surface footprint, prevent surface subsidence, and where possible, reduce impacts to water quality and quantity. The standards must also require mine operators to revegetate mined land using native plants and soils and to recontour disturbed land to its original topography.
- **Enforcement with teeth.** A revised enforcement system will impose penalties on miners who violate regulatory requirements, provide for regular inspections of mining operations, and "block" bad environmental actors from obtaining approval for mining. These measures are necessary to deter mine operators from violating environmental requirements, and to detect environmental violations and risks in a timely manner.
- **Adequate financial assurances to cover all reclamation costs, including those for long-term water treatment.** This measure is necessary to prevent the public from bearing the financial burdens of performing the mine cleanup anticipated in the mine operation and closure plan, should a bankrupt mine operator be unable to do so.
- **Accident insurance for unanticipated mine waste disasters.** Separate from reclamation financial assurance, mining companies should be required to hold accident insurance to protect the public from paying for the cleanup of unanticipated mine waste disasters like Mount Polley or Gold King.
- **Provisions for public participation and review of bonding, inspections, and enforcement.** Public participation and transparency are vital to ensure that the new regulatory program is accountable to the owners of the lands on which mining takes place. Currently, under the National Environmental Policy Act, public participation is encouraged regarding a mine's Environmental Impact Statement, but this does not address bonding requirements, inspections, and enforcement.
- **A system of fees charged to mine operators to defray the necessary costs of inspections, environmental reviews, and other administrative functions under a new regulatory program.** A new fees system placing this program on a "pay as you go" basis will allow BLM to secure needed funding for more mine inspections and to pay independent contractors to prepare environmental impact documents.

A Way Forward

In order to prevent future toxic mine waste disasters from being built on public lands, federal agencies must modernize their environmental protection regulations. In addition to these regulatory changes, Congress must still reform the antiquated 1872 Mining Law that gives away public resources and lands for next to nothing while declaring mining the highest and best use of our lands. Reform of the 1872 Mining Law that includes a small reclamation fee on current mining is the only way to generate a steady-stream of dedicated funding for the cleanup of abandoned and inactive mines.

¹ Al Jazeera America Opinion by Jennifer Krill: "The Colorado mine spill was predictable and preventable", August 15, 2015. See <http://america.aljazeera.com/opinions/2015/8/the-colorado-mine-spill-was-predictable-and-preventable.html>

² 30 U.S.C §29 et seq.

³ See EPA's Toxic Release Inventory: [Metal Mining in the 2014 TRI National Analysis](#)

⁴ Lindsay Newland Bowker & David M Chambers, Risk-Public Liability-Economics of Tailings Storage Facility Failures, July 2015. See <http://csp2.org/files/reports/Bowker%20%26%20Chambers%20-%20Risk-Public%20Liability-Economics%20of%20Tailings%20Storage%20Facility%20Failures%20%E2%80%93%2023Jul15.pdf>

⁵ See Earthblog by Shreema Mehta [Brazil Mine Spill: Enough is Enough](#) November 10, 2015.

⁶ Independent Expert Engineering and Review Panel, Report on Mount Polley Tailings Storage Facility Breach, January 30, 2015. See <https://www.mountpolleyreviewpanel.ca/final-report>

⁷ EPA Liquid Assets 2000: Americans Pay for Dirty Water at <http://water.epa.gov/lawsregs/lawguidance/cwa/economics/liquidassets/dirtywater.cfm>

⁸ 43. C.F.R. Subpart 3809 and 36 C.F.R. Subpart 228

⁹ See Earthworks (formerly Mineral Policy Center) fact sheet: https://www.earthworksaction.org/files/publications/MPCfs_NortonRule.pdf

