



Testimony of Aaron Mintzes, Senior Policy Counsel, Earthworks

Testimony before the U.S. House Subcommittee on Energy and Mineral Resources

HR 520, the National Strategic and Critical Minerals Production Act February 15, 2018

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Thank you Mr. Chairman, Ranking Member Lowenthal, and Members of the Subcommittee for the opportunity to testify before you in opposition to HR 520, the National Strategic and Critical Minerals Production Act. My name is Aaron Mintzes, and I am Senior Policy Counsel at Earthworks. We are a non-profit organization dedicated to protecting communities and the environment from the destructive impacts of mineral and energy development, while seeking sustainable solutions. We work closely with a broad coalition of governments, Native Americans, citizen groups and other conservation organizations to improve policies governing hardrock mining and oil and gas development.

HR 520 Undermines the National Environmental Policy Act (NEPA)

HR 520 directly undermines the National Environmental Policy Act (NEPA)¹, often referred to as the environmental “Magna Carta.” NEPA requires federal agencies to assess the environmental impacts of their actions. For nearly fifty years, NEPA has provided certainty and predictability through a transparent process well understood by federal regulators, permit applicants, and affected communities.

NEPA ensures that Americans can take part in the review and development of projects affecting our social, economic, and environmental health. The NEPA process provides an opportunity for communities to learn about proposed federal actions and offers agencies a chance to receive valuable input from the public.

¹ 42 U.S.C. 4321 et seq. (1970)

Section 5(b) of HR 520 allows agencies to subvert the NEPA process entirely, potentially leading to greater uncertainty risks in permitting. In particular, this bill removes requirements for indirect and cumulative impacts analysis in environmental reviews. Worse, any lead agency may simply cut out all public input in decision making. The notion that any state or federal agency may refuse public participation, flies in the face of our democratic values.

The NEPA process works. According to the Government Accountability Office (GAO),² the average time it takes the Bureau of Land Management (BLM) to permit a mine is two years - not ten, not even seven.³ This period is competitive with most Western democracies with robust mining industries like Australia, Canada, Chile, and Norway. When a permit takes longer than average, often the reason is the low quality of information operators provided in their mine plans and the agencies' limited resources. Often delays occur for perfectly legitimate reasons like changes in market conditions.

Ultimately, NEPA is a source of strength and predictability. It helps lay the foundation for a mining company's social license to operate, which gives domestic mining a distinct competitive advantage. Other nations, like China, without this long standing commitment to public input in mining decisions, remain relatively undesirable destinations for mining investment.

The United States of America is one of the world's best places to mine

Annually, the Fraser Institute, a center-right Canadian think tank, surveys mining executives asking where they prefer to invest. The Fraser Institute then ranks more than 100 national and subnational jurisdictions according to their mining investment desirability, accounting for both mineral potential and policy perception. For 2016 (the last year for which data is available), Nevada ranks 4th, Arizona 7th, and Utah, Idaho, and Alaska are all in the top 15. China ranks 54th.⁴

America owes our mineral investment attractiveness to three factors:

- 1) The strength and certainty of our democratic institutions
- 2) Our rich mineral endowment
- 3) Our uniquely permissive mining laws and regulations

Mining is risky business and mining companies crave certainty. Attention to the rule of law, commitment to transparency, functional government, strong capital markets, all contribute to this

² HARDROCK MINING: BLM and Forest Service Have Taken Some Actions to Expedite the Mine Plan Review Process but Could Do More

[GAO-16-165](#): Published: Jan 21, 2016. Publicly Released: Feb 22, 2016.

³ HR 520 Section 2, 5(E).

⁴ Fraser Institute: [Annual Survey of Mining Companies 2016](#)

certainty. The United States Geological Survey (USGS) provides mineral statistics and commodity information revealing our nation's robust mineral resources.⁵ And the 1872 Mining Law, a statute still on the books from our nation's Manifest Destiny era of Westward expansion, still governs domestic mining.⁶

The 1872 Mining Law

The General Mining Law of 1872 considers mining the highest and best use of public lands, even where our public lands may be better suited for oil and gas drilling, coal mining, grazing, hunting, fishing, recreation, or conservation; because of the 1872 Mining Law, mining wins. This nineteenth-century law robs twenty-first century Americans of the choice to select a different land use that competes with mining.

To secure a mining claim, the miner needs to only discover a locatable mineral on public lands, stake a claim, and pay a one-time \$212 fee plus another \$155 annually. In exchange, they receive all the people's wealth below the surface without paying a dime in royalties to the taxpayer. In addition to free minerals, mining companies receive generous tax breaks for making capital investments and depleting our natural resources.

For instance, the Percentage Depletion Allowance (PDA) permits a company to deduct a fixed percentage from their gross income according to the mineral extracted, ranging from 22% for uranium to 15% for silver and other hardrock minerals.⁷ In some cases this deduction actually exceeds costs. This results in a situation where mining companies not only pay virtually nothing for the public's minerals, but they also get subsidized to mine public minerals they were freely given in the first place. In total, between FY 07 and FY 11, the PDA, expensing and reclamation deductions costs taxpayers approximately \$360 million dollars every year.⁸

Taxpayers also subsidize the cost of mine clean up. The Environmental Protection Agency (EPA) estimates that the clean up cost for our nation's approximately 500,000 hardrock abandoned mine sites⁹ ranges around \$50 billion.¹⁰ Unlike with coal mining, the hardrock

⁵ USGS Mineral Commodity Summaries see <https://minerals.usgs.gov/minerals/pubs/mcs/>

⁶ See 1872 Mining Law 101 https://earthworksaction.org/issues/1872_mining_law_101/

⁷ See generally Congressional Research Service, The Federal Royalty and Tax Treatment of the Hardrock Mining Industry: An Economic Analysis, June 13, 2008 https://www.everycrsreport.com/reports/RL34268.html#_Toc224725180

⁸ *ibid.*

⁹ Earthworks/Mineral Policy Center, Burden of Gilt: The legacy of environmental damage from abandoned mines, and what America should do about it, (1993). https://www.earthworksaction.org/library/detail/burden_of_gilt

¹⁰ EPA, Office of Solid Waste And Emergency Response, Cleaning Up the Nation's Waste Sites: Markets and Technology Trends (2004), pages 1-11 and 1-12. See <http://nepis.epa.gov/Exe/ZyPDF.cgi/30006II3.PDF?Dockey=30006II3.PDF>

mining industry pays no federal reclamation fee. So, the clean up burden largely falls upon the American taxpayer.

Mining Pollutes Water Forever

Two Clean Water Act loopholes give mining companies free reign to dump toxic mine waste directly into streams, rivers, lakes and wetlands.¹¹ Facilitating this practice, the mining industry enjoys a categorical exemption from the Resource Conservation and Recovery Act's (RCRA) hazardous waste provisions.¹² These policy decisions have created devastating results.

According to the EPA's Toxic Release Inventory (TRI), the metals mining industry is the single largest source of toxic waste in the country¹³, and EPA estimates hardrock mining pollutes 40% of the headwaters of watersheds in the western United States.¹⁴ Thus, the mining industry gets free minerals, generous tax breaks, and leaves the waste to the rest of us.

In the midst of declining fresh water supplies, an increasing number of hardrock mining companies generate water pollution that will last for hundreds or thousands of years. With new projects on the horizon, perpetual water treatment for mines continues to rapidly escalate in to a severe national dilemma.

Earthworks' 2013 report, *Polluting the Future*, shows the staggering amount of our nation's water supplies perpetually polluted by mining.¹⁵ Our review of government documents reveals these mines will generate an estimated 17 to 27 billion gallons of polluted water annually, forever. This equates to 2 trillion water bottles of pollution – enough to stretch from the earth to the moon and back 54 times.

Perpetual pollution from metal mines has contaminated drinking water aquifers, created long-standing public health risks, and destroyed fish, wildlife, and their habitat. The primary cause of this lasting pollution is acid mine drainage, and no existing hardrock open pit mine operators can demonstrate they can stop acid mine drainage once it occurs on a large scale, and mitigation efforts often fall woefully short of protecting ground and surface water.

¹¹ See Earthworks factsheet: Mining Industry Exploits Clean Water Act loopholes
https://www.earthworksaction.org/publications/mining_industry_exploits_clean_water_act_loopholes/

¹² See Solid Waste Disposal Act Amendments of 1980 (Public Law 96-482) 3001(b)(1)(A)
<https://www.epa.gov/hw/special-wastes>

¹³ See <https://www.epa.gov/trinationalanalysis/metal-mining-2016-tri-national-analysis>

¹⁴ EPA Liquid Assets 2000: Americans Pay for Dirty Water
<http://water.epa.gov/lawsregs/lawsguidance/cwa/economics/liquidassets/dirtywater.cfm>

¹⁵ *Polluting the Future: How mining companies are polluting our water in perpetuity*, May 1, 2013 (Bonnie Gestring, Lisa Sumi) https://www.earthworksaction.org/publications/polluting_the_future/

Our *Polluting the Future* report tracked the pollution records for fourteen of our nation's sixteen currently operating copper porphyry mines, representing approximately 89% of domestic copper production. These mines have the environmental impacts typically resulting from the development of copper porphyry deposits, especially pipeline spills, tailings failures, and water collection and treatment failures. Our research shows that copper porphyry mines cause water pollution associated with acid mine drainage, metals leaching and/or accidental releases of toxic materials. We found that all mines experienced at least one failure, with most mines experiencing multiple failures.

In 2017 we studied gold mines and found similar results.¹⁶ Of the 27 gold mines reviewed, all had at least one pipeline spill or accidental release. Twenty gold mines (74%) failed to capture or control contaminated mine seepage and caused ground or surface water impacts to drinking water supplies, and loss of fish and wildlife habitat.

Finally, the hardrock mining industry performs especially poorly at predicting whether their projects will create water quality problems.¹⁷ In short, all mining operations predict their projects will comply with applicable water quality standards. Yet, they are wrong 76% of the time.

Definition of strategic and critical minerals

HR 520 broadly defines critical and strategic minerals as those that, among other things, “support domestic manufacturing, agriculture, housing, telecommunications, healthcare, and transportation infrastructure.”¹⁸ In other words, virtually every mineral pulled from the ground.

The sweeping breadth of this definition ignores all scientific efforts to properly identify and characterize these minerals. Both the Department of Energy (DOE) and the United States Geological Survey (USGS) have extensively studied this topic.¹⁹ Criticality determinations tend to balance three different factors: mineral use, mineral supply, and alternatives availability. While some policy makers have legitimate worries about potential supply constraints, our recent experience with China's attempt to corner the market on so-called rare earth minerals illustrates that the proper balance between the free market and fair trade works.

¹⁶ Earthworks: US Gold Mines Failure and Spills Report, July 2017 (Bonnie Gestring, John Hadder) www.earthworksaction.org/USgoldminefailures

¹⁷ Predicting Water Quality Problems at Hardrock Mines: A Failure of Science, Oversight, and Good Practice https://www.earthworksaction.org/publications/comparison_of_predicted_and_actual_water_quality_at_hardrock_mines/

¹⁸ Section 4

¹⁹ Schulz, K.J., DeYoung, J.H., Jr., Seal, R.R., II, and Bradley, D.C., eds., 2017, Critical mineral resources of the United States—Economic and environmental geology and prospects for future supply: U.S. Geological Survey Professional Paper 1802, 797 p., <http://doi.org/10.3133/pp1802>.

In 2010, when China restricted the export of certain minerals, markets and the international community responded precisely how they should. Savvy investors provided capital for new critical minerals projects. The Mountain Pass molybdenum mine in California re-opened for business. Australia opened the Mount Weld mine. Critical mineral manufacturers diversified their supply chains, researched alternatives, and increased recycling.

In 2012, the United States, European Union, Brazil, Russia, India, Indonesia, Japan and other nations complained to the World Trade Organization (WTO). In 2014, we won.²⁰ China dropped their tariffs, commodity prices plummeted, supply met demand, and the right blend of free market innovation and fair trade justice prevailed.

Alarmism over China choking off our critical mineral supply relies on the premise that if we mine domestically, the minerals will stay here. China's lifting of trade restrictions tanked prices and caused Mountain Pass to go belly up. Then, in June 2017, a Chinese firm bought the bankrupt mine.²¹ In fact, foreign mining companies own many mineral claims across the West.

Supply chains, refining and product manufacturing occur globally. A number of friendly countries like Australia, Chile, Canada, and India have supply and refining capacity. In the real world, demand for the products manufactured from critical minerals will drive critical minerals supply.

Conclusion

The United States needs critical minerals for a variety of important applications including renewable energy and defense technologies. The 140+ year old law that governs mining on public lands gives companies free and open access to these minerals, and, our stable, predictable, fair, and open permitting process provides the certainty the mining industry needs, and the public participation process that communities that live near mines deserve. The National Environmental Policy Act codifies that certainty. Dismantling this well-established process and removing meaningful public participation could actually undermine investment by taking away the industry's social license to operate.

Even under the current permitting process, research shows that hardrock mines pollute water at an alarming rate. A hurried and careless permitting process will only exacerbate this problem. Instead of pushing the public out of the process, the mining industry should be advocating for

²⁰ See WTO DS431: China — Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds431_e.htm

²¹ [Mountain Pass sells for \\$20.5 million](#) by Andrew Topf [Mining.com](#)

laws that incentivize better-designed mines - mines that use the best available technology to control water pollution.

Instead of an end run around one of our most important environmental laws, Congress should focus their efforts on increasing research in recycling, reuse, and alternatives. The Department of Energy leads a Critical Materials Institute with a \$120 million budget to research alternatives, reduce waste, and diversify production. In Japan, Honda expects to recover 80 percent of rare-earth metals contained in some of their used nickel-metal-hydride car batteries. In Germany, Siemens is researching recycling rare earths from electric vehicle motors.²²

Conservation, recycling and substitution will each do more to ensure available supply of the minerals we need than a bill that guts community input in mining decisions that affect their water and health. The United States should be embracing innovation, demanding best practices, and leading the world with a 21st century mining law that protects our precious water resources. This leadership will only come when we have reformed the antiquated 1872 Mining Law and closed loopholes in our bedrock environmental laws that allow foreign mining corporations to take our minerals for nothing leaving us only with perpetual waste.

Thank you for allowing us to share our views on this important issue.

²² Van Gosen, B.S., Verplanck, P.L., Seal, R.R., II, Long, K.R., and Gambogi, Joseph, 2017, Rare-earth elements, chap. O of Schulz, K.J., DeYoung, J.H., Jr., Seal, R.R., II, and Bradley, D.C., eds., Critical mineral resources of the United States— Economic and environmental geology and prospects for future supply: U.S. Geological Survey Professional Paper 1802 p. O1–O31, <https://doi.org/10.3133/pp1802O>.