EARTHWORKS

April 13, 2023

Senator Brenner, Representative Gramlich and members of the Committee On Environment and Natural Resources thank you for the opportunity to provide testimony.

I am testifying neither for nor against: LD 1363: An Act to Support Extraction of Common Minerals by Amending the Maine Metallic Mineral Mining Act, as well as LD 1476: An Act to Amend the Definition of "Metallic Mineral" in the Maine Metallic Mineral Mining Act, LD 1508: An Act to Ensure a Strategic Approach to Maine's Energy Transition by Imposing a Moratorium on Lithium Mining. LD 1471: An Act to Amend Provisions of the Maine Metallic Mineral Mining Act, and LD 1495: Resolve, Establishing the Commission to Study the Role of Critical Minerals as a Resource in the State.

I am testifying in support of LD 1564: An Act to Eliminate Metallic Mineral Mining Activities Without a Permit.

I am testifying in opposition to: LD 1433: An Act to Exclude Pegmatites from the Definition of "Metallic Mineral."

My name is Jan Morrill, I am a resident of Rockland and the Tailings Campaign Manager at Earthworks. Earthworks is a national 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, community groups and other conservation organizations to improve policies governing hardrock mining, oil, and gas development in the U.S. and abroad.

The planet is in the midst of an existential climate crisis, and we must accelerate the transition to renewable energy. Energy transition minerals, like lithium, currently play an important role composing electric vehicle batteries and other technologies. Responsibly sourcing these minerals means clean energy can truly be clean. However, securing our mineral supply does not require weakening our environmental laws.

Metallic Mining Pollutes Forever

Metals mining is the leading industrial polluter in the United States, and contributes 10% of energy-related greenhouse gas emissions worldwide.[1] It's also among the least regulated. In the West, where metal mining is common, perpetual sulfuric acid drainage has polluted the headwaters of 40% of the Western watersheds.[2]

Dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

1612 K St. NW, Suite 904
Washington, DC 20006
202.887.1872
EARTHWORKS.ORG

earthworksaction
@earthworks

[1] UNEP, 2019: https://www.resourcepanel.org/reports/global-resources-outlook See all EPA's Toxic Release Inventory
[2] EPA, 2000: https://nepis.epa.gov/Exe/ZyPDF.cgi/20004GRW.PDF?Dockey=20004GRW.PDF

Spodumene lithium deposits could pose a higher risk of generating acids than typical non-metallic mines for sand, quartz, or quarry minerals. For this reason, Maine should proceed with caution before changing environmental regulations.

Data shows it is extremely difficult to predict the exact impacts of mining operations before they begin. Moreover, the predictions made by mining plans are frequently wrong. In an unprecedented 2005 peer-reviewed research paper commissioned by Earthworks, conducted by a member of the National Academies of Science Earth Science Board, mining industry promises of environmental performance were compared against what actually happened at the mines. While 100% of mines in the study predicted environmental compliance; 75% failed.[3]

Globally, there is very little data and independent review of the particular impacts of spodumene lithium mining, the majority of which occurs currently in Western Australia. Before changing the regulations that protect local communities, we need more information. We need look no further than the Callahan Superfund Site in Brooksville to understand the disastrous impacts metallic mining can have. To counteract these impacts, Maine has already put in place some of the most protective mining regulations in the country for water, air, the industries that depend on natural resources, as well as for taxpayers–with our bonding and insurance requirements.

Metals Mining Crowds Out More Beneficial Land Uses

Mining should be balanced with other nearby land uses, which often generate longer lasting, sustainable economic activity. For instance, the outdoor economy in Maine— defined by bike, snow, trail and water sports as well as camping, fishing, hunting, motorcycling, off-roading and wildlife viewing — makes up 3.6% of Maine's economy, supports more than 30,000 jobs and pays $1.2 billion in in compensation, accounting for 2.8% of the state's wages.[4] The value of hunting, fishing, recreation, sacred sites, pristine landscapes and clean water often outweighs that of the minerals.

Alternative Lithium Sources Reduce Demand for New Mines

New mines are not the only sources of the metals needed for electric vehicles or other energy transition technologies. Before looking to open new mines, we should prioritize the alternatives that are already available for mineral sourcing, like realizing the full potential of recycling, reuse, take-back (producer responsibility) programs, and other ways of reclaiming minerals from products that have reached the end of their useful lives.

According to research by the University of Sydney's Institute for Sustainable Futures, effectively recycling end-of-life batteries could reduce global EV mineral demand 55% for newly mined copper, 25% for lithium and 35% for cobalt and nickel by 2040.[5] If we set the right incentive structures, we can significantly reduce the demand for new mining.

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[3] Kuipers & Maest, 2005: https://earthworks.org/resources/comparison_of_predicted_and_actual_water_quality_at_hardrock_mines/

[4] Maine Outdoor Office of Recreation, 2022: https://visitmainemediaroom.com/wp-content/uploads/2022-Year-in-Review.pdf

[5] University of Technology Sydney Institute for Sustainable Futures, 2021: https://earthworks.org/wp-content/uploads/2021/09/UTS-EV-battery-metals-sourcing-20210419-FINAL.pdf

New research out of UC Davis found that the US can achieve zero emissions transportation and reduce demand for lithium up to 92% by 2050 by improving transit, battery design, reuse and recycling.[6] In Maine, buses make up less than 1% of annual vehicle travel.[7] We have the opportunity to make significant changes to reduce the demand for lithium, and therefore the demand for new mines, if we invest in better electric vehicle transit options.

Rolling back Maine's regulations would undermine the state's efforts to protect clean water and the communities and businesses that rely on it. It is essential the Maine Legislature continue to ensure stringent safeguards are in place for metallic mining and consider and promote all policy options that reduce the need for new primary raw materials extraction.

Thank you for your consideration.

[6] Climate + Energy Project, 2023: https://www.climateandcommunity.org/more-mobility-less-mining?utm_source=substack&utm_medium=email
[7] Maine Clean Transportation Roadmap, 2021: https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/Maine%20Clean%20Transportation%20Roadmap.pdf