



SIERRA CLUB

MAINE CHAPTER

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To: Committee on Environment and Natural Resources

From: Matt Cannon, Sierra Club Maine

Date: April 13, 2021

Re: **Testimony Neither For Nor Against LD 1163- An Act To Reduce Pollution by Prohibiting Metallic Mineral Mining**

Senator Brenner, Representative Tucker, and Members of the Joint Committee on Environment and Natural Resources. My name is Matt Cannon, and I write on behalf of Sierra Club and the over 20,000 members and supporters in Maine. Founded in 1892, Sierra Club is one of our nation's oldest and largest environmental organizations. We work diligently to amplify the power of our 3.8 million members nation-wide as we defend everyone's right to a healthy world.

Overall, we agree that there are many concerns with mining; in essence mining is extractive and unsustainable. Specifically, sulfide mining often leads to contamination of our waters. We oppose any type of mining that would significantly degrade our environment. Moreover, new mining should be the last option on the table.

Not all mineral extraction mining is equally damaging. Sulfide-rich mining wastes are very damaging to our waters due to their acidity. This is the most serious environmental threat from mining, particularly in Maine. However, silicate mining does not produce acidic wastes; it does have an impact, of course, but it would be helpful to distinguish between the various types of mining.

Silicate minerals make up approximately 90% of the Earth's crust, and include such minerals as granite, quartz, [iron](#), [titanium](#), [magnesium](#), [lithium](#), [manganese](#), and [sodium](#). We recently learned that Maine has potential for lithium, a mineral that has become essential in the fight against a warming climate. Right now, lithium is a critical component in the batteries that power electric vehicles, as well as a host of appliances and other applications.

According to State Geologist Robert Marvinney, "We have a current project in western Maine funded through the USGS's Critical Minerals program to better assess this potential. One deposit there is known to have very high-grade lithium..." The largest of known lithium deposits are located on other continents, with Chile, Australia and China having the three largest reserves. Obviously, the carbon footprint of bringing lithium to

this country is large, whether it comes as raw ore or in the form of a battery. Additionally, the carbon footprint of mining in Maine might be large, and industrial/commercial projects cannot be exempt from our mandated climate targets.

The first priority is ensuring reuse of the minerals we have. In the meantime, we need to do everything we can to ensure a cradle-to-grave economy. If there are rare earth minerals in Maine needed for our clean energy future as there apparently are, we may need to think twice before banning all mineral extraction. Perhaps this bill could be amended to create a moratorium on mining, or a moratorium/ban on sulfide mining, in particular. This bill could also be amended to initiate a true cradle-to-grave reuse process for our minerals and metals.

We believe that the [Sierra Club Mining Policy](#) offers useful guidance in this debate, not only with regard to environmental principles but also with regard to how our domestic decisions affect people elsewhere based on what are known as Jemez principles:

The United States must avoid promoting mining to meet its needs and demands in other parts of the world while restricting it domestically.

This does not mean that the U.S. should be mining more to keep up with other countries. On the contrary, our policy states that recycling and reuse should occur before any new mining:

[Clean energy manufacturers] must seek minerals that first come from recycling and reuse. They must seek minerals from mining waste before mining new ore bodies. They must work to establish the highest standards for mining and then promote certification to meet those standards and only purchase raw materials that are certified to meet those high standards. Manufacturers must adopt programs that accept full responsibility for waste recovery, reuse and recycling of their products to minimize the demand for new virgin ores.

Additionally, we need to reduce the demand for batteries that use rare earth minerals:

Reducing the demand for lots of individual batteries for storage will be a necessary strategy in both the transportation and electric sectors...Research and development into other long-term storage solutions should be encouraged, as they may lead to cost effective alternatives to lithium ion batteries with fewer mining impacts.

If mining is necessary in Maine, especially to meet our clean energy goals, then there are very strict requirements set out in the policy:

Maine must allow full agency discretion to deny mineral claim staking, leasing, sale or extraction that is determined to not be in the public interest and protect human communities and the natural environment. Where mineral extraction is judged to be

acceptable, after full public review and participation, then fair mineral royalties for public minerals must be required and any violations of environmental or labor standards should lead to strict fines and the possibility of mine closure.

There must be no privatization or patenting of public lands for mining. Mining companies must remain liable for any lingering negative impacts and pollution.

Mining companies must pay a family-supporting living wage with full benefits and not discourage or impede their workers' right to unionize.

Government research programs and companies must constantly seek ways to manufacture products that are more efficient, rely on fewer resources, substitute non-toxic and less damaging raw materials and minerals, and are more easily recycled and reused.

Before considering new mining, we need to better recycle and reuse what we have, we need to reduce demand for batteries that use mined materials, and we should invest in non-mining alternatives to the rare earth minerals. If mining is necessary, particularly as it relates to the clean energy future, then we must ensure that their extraction meets strict environmental standards and does not shift the negative impacts of extraction to people on other continents without the same level of environmental protections.

Respectfully submitted,

Matt Cannon

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Sierra Club Maine