

Re: LD 1363

Dear Senator Brenner, Representative Gramlich, and Distinguished Members of the Environment and Natural Resources Committee,

Although not specified, I assume the thrust of this bill is about Mt. Plumbago in Newry. The mining of metals, such as lithium, are vital to our economic development and to our national security. However, I have some strong reservations about this bill due to the following sections.

1. The definition of Open Pit in section 6. E.6. The Current Maine Metallic Mineral Mining Law defines an open pit as less than 3 acres. This bill allows for 100 acres **"at any one time"**.

To put that in perspective, the area from the far side of the State House to the far side of this office building with the land in between is about 3.8 acres. According to the tax assessor's documents, the total acreage of the Maine Mall is 55.16 acres. Proposed in this bill, each open pit is about 2 Maine malls worth, before they go on to the next one. In a mining area in exceedance of 3,000 acres over at least a 20 year life of mine, that amount to a huge area and volume of disturbance.

Just a single open pit with a surface area of 100 acres and a depth of only 50 feet, will generate enough fill for approximately 400,000 18 foot dump trucks. (Note: The Environmental Impact Statement for the very recently permitted Thacker Pass mine in Nevada with lithium from clay has a maximum depth of 300 feet.)

(1 acre = 43,559 square feet X 100 acres = 4,355,900 square feet X 50 feet depth = 217,800,000 cubic feet = 8,066,666 cubic yards. OR about 400,000 18 foot dump trucks each carrying 20 cubic yards.)

2. The allowed depth of open pits is not specified in LD 1363, including if the depth can be below the water table. It is important to note that Mt. Plumbago is about 4 miles north of the Androscoggin River. In close

proximity to Mt. Plumbago are the Ellis River, Bear River, and the Meadow Brook/ Pond Creek, all that drain into the Androscoggin.

3. Violation of water quality standards is permitted by LD 1363. Section 5 allows for **violation of sedimentation and turbidity**. Sedimentation and turbidity are harmful to drinking water quality and can be devastating to aquatic life and the soils and biota in the riparian zone. With such massive areas of disturbed land, the potential amount of sedimentation and turbidity is a colossal hazard.

There are no proscriptions on what the sediment released might contain. Unique to the mining process are lubricants that could contain PFAS. Although ANFO (ammonium nitrate fuel oil) is commonly employed, perchlorate as an oxidizer can also be used. Perchlorate is very water soluble and is an endocrine disrupter and development inhibitor in fish. Importantly, it suppresses the human thyroid function, especially in the fetus. Xanthate derivatives used in the processing of mined rock during floatation are harmful to aquatic life and their MSDS states they can be toxic for humans.

4. Section 6.E.6 mentions **“flooded areas”**. This appears to be the first time “flooded areas” appears in the Maine Metallic Mineral Mining Act or the DEP Chapter 200 rules. There is no definition or delineation.

Very important questions must be answered as to what the underlying significance of flooded areas is. How large are the flooded areas? What is contained in the flooded areas? Are they in contact with ground or surface water. Can the allowed 100 acre open pits be a flooded area? Will they persist for perpetuity? Crucially, will the allowed flooded areas function as disguised tailing ponds?

5. Section 6.E. reclamation is grossly inadequate, and vague. Especially in view that a hard rock lithium mine with hundreds of sequential open pits over

many years as allowed by LD 1363, could easily be the largest man made disturbance of the land in Maine, if not New England.

Although for coal, the Surface Mining Control and Reclamation Act requires that reclamation plans must provide for erosion and effluent control for 5 years, which is better than this bill. However, with massive volumes of land disturbance and extreme weather events, the need for protection of Maines environment for perpetuity is imperative.

6. Reclamation for hard rock lithium mines, such as at Mt. Plumbago, must be engineered for perpetuity and provide for great resiliency in the face of wildfire, extreme weather events including floods, and climate change. The inevitable risks from erosion, winds, and failure of "highwalls" (section 6.E.1) must be analyzed and obviated.

Mining for lithium can be vital for our economy and in our battle with climate change. It is equally imperative that the cumulative risk to our land, water and health be properly assessed and prevented.

Thank you for your consideration.

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