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Testimony to the Environment and Natural Resources Committee RE: <u>LD 1073</u>: An Act to Amend Provisions of the Maine Metallic Mining Mineral Act to Advance Health Equity and Improve the Well Being of Vulnerable Populations

Dear Members of the Environment and Natural Resources Committee,

I am an Associate Professor of Obstetrics and Gynecology at Geisel School of Medicine at Dartmouth, and a Certified Nurse Midwife with 21 years of experience caring for pregnant women. I reside part time with my family in Old Town, Maine, and work at Dartmouth Hitchcock Medical Center in Lebanon, New Hampshire. I am writing as a health professional who specializes in the care of pregnant and postpartum women to express my strong support for LD1073, *An Act to Amend Provisions of the Maine Metallic Mining Mineral Act to Advance Health Equity and Improve the Well Being of Vulnerable Populations*.

Mining in the sensitive watersheds of Maine has and will cause significant environmental harm extending far beyond the time that the mine is actually extracting minerals. The known devastation caused by metallic mining is exactly the reason that Maine has had relatively strong land protection rules which prohibited this practice. However, federal environmental protections are currently in jeopardy, requiring that states increase the level of protection to ensure the well-being of our communities. LD1073 is an important step in this direction by requiring a comprehensive baseline health assessment and periodic evaluation which acknowledges and monitors for the potential impact of any mining operations. Additionally, the bill would grant a transparent, contemporaneous, and public "right to know" about the risks of exposure to toxic materials generated by any mining operation. The bill also requires adequate and long-term monitoring of toxic waste after closure and ensures that those who profited from the mine pay for remediation rather than placing the burden on communities which have already been harmed. These provisions would ensure that if mining is permitted it is conducted in a responsible way which safeguards the health of communities and the environment. The toxic impact of mining can be subtle, building up over years of the operation of a mine and continuing after it is closed, as occurred at the Callahan Corporation superfund site in Maine (remediation now funded by both federal and state taxpayer dollars), or dramatic, such as the recent devastation resulting from dam failure and contamination of farmland due to copper mining in Zambia

(https://miningfocusafrica.com/2025/03/19/acid-spill-from-chinese-owned-copper-mine-contaminatesvital-waterway-in-zambia/). In either case, the health and well-being of vulnerable neighboring communities must be protected.

Metallic mining is a toxic and environmentally destructive activity with long lasting impact on water, wildlife, fish, and human health. For example, the disruption of sulfide rock and subsequent runoff of sulfuric acid and heavy metals such as copper, lead, arsenic, and mercury into freshwater systems as a result of metallic mining poisons both the water and the fish in them, subsequently also poisoning the

mammals, birds, and people who eat them. Heavy metals are not easily eliminated from the body once ingested, and in fact build up as fish and animals higher up the food chain, including humans, consume smaller ones which contain them.

As a specialist in maternal health, I want to specifically address the reproductive risks caused by the release of toxic byproducts of metallic mining and the movement of heavy metals into the environment. Arsenic, lead, and mercury are well known byproducts of mining and environmental toxins which are hazardous to a developing fetus exposed during pregnancy, resulting in lifelong effects from childhood development through adulthood. Mercury, lead and arsenic all pass freely through the placenta to the baby when consumed by the mother, and also cannot be easily eliminated by the fetus. Depending on the amount and timing of perinatal exposure, impacts range from subtle to severe. For example, lower levels of lead and mercury exposure are associated with neurodevelopmental problems like attention deficit disorder and difficulty in school, and at higher levels, severe developmental delays, seizures, and hearing and vision problems. Both lead and mercury also accumulate in breastmilk, resulting in concentrations of heavy metals in breastmilk which are higher than in the mother's own body. Arsenic moves easily into water, and is a common byproduct of metallic mining. Arsenic exposure during pregnancy has been linked to poor fetal and infant growth, preterm birth, and pregnancy loss. The adverse effects of arsenic during pregnancy are the topic of a multiyear study being conducted by researchers at Dartmouth College, who found that levels of arsenic in drinking water have such negative impact on pregnancy outcomes that they should be "as close to zero as possible."

Like many states, Maine already struggles with the contaminants present in the water and fish that our children, pregnant women, and elders consume. Although the impacts of environmental contaminants are magnified during pregnancy, the effects of exposure are lifelong. Heavy metals and other toxic chemicals released through mining also cause immune compromise, breathing problems and are carcinogenic when ingested or inhaled. Why would we want to risk more of this– and worse? I have two daughters who may choose to start families soon, both of whom spend considerable time fishing and eating wild foods. I do not want to see them -or any other person, young or old- exposed to heavy metals released into the environment because we were unsuccessful in halting mining companies from making profits, to say nothing of the impact of the associated processing plants which also pose significant health risks for surrounding communities.

It is essential to remember that we humans are inextricably connected to the health of the land and water. Chemicals that are released into the environment through mining cannot be put back into the earth. Once present in the water, they will be consumed by fish and animals, and in turn by humans, where the concentration of toxins will accumulate. Lead, arsenic and mercury persist in the body and are extremely difficult to clear. In fact, it has been said that the only way a woman can reduce her burden of heavy metals is to get pregnant and/or breastfeed, since these metals will pass easily from mother to child. A fetus, infant, or young child will be far more negatively impacted by heavy metal poisoning because they are small, are less able to process toxic exposures, and have rapidly developing brains and nervous systems. However, the burden to their health will be with them lifelong, unless we, and our legislators, act to protect communities from irresponsible and destructive mining practices.

LD 1073 is fundamentally about an equal right to health for all communities. The risks associated with not preventing metallic mining would be disproportionately born by communities living close to mining operations, or who depend on fish and wildfoods for cultural reasons. Contamination of water, fish, and

game violate the treaty reserved fishing and hunting sustenance rights of Wabanaki people by making fish and animals unsafe to eat and putting the health of Wabanaki community members at particular risk.

I urge the Committee to vote favorably on LD 1073 and protect our rivers, fish, wild creatures and generations of people who live here from the risks caused by metallic mining. Thank you for the opportunity to offer testimony in favor of this important bill.

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Thank you for allowing me an opportunity to submit written testimony in favor of LD1073. Please see attached testimony.