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## Testimony of Andrew Morgan

### Before the Board of Environmental Protection

#### Neither for nor Against the Proposed Chapter 200: Metallic Mineral Exploration, Advanced Exploration and Mining

September 15, 2016

Chairman Parker and members of the Board of Environmental Protection, my name is Andrew Morgan. I am a graduate research assistant in the School of Forest Resources at the University of Maine. I am testifying today neither for nor against the proposed Chapter 200 rules. My intent today is first to make it more publicly known of the research that Dr. Sandra de Urioste-Stone and I are currently conducting on Maine residents' perceptions of metallic mineral mining in the state. I have gathered qualitative data that includes all the testimonies that have been given at public hearings since 2012, every newspaper article on this topic in the Bangor Daily News and Portland Press Herald including online comments, and data from stakeholder websites. We are also in the final stages of a mail survey sent to a random sample of Maine residents.

These qualitative and survey data combined will allow us to determine Maine residents' acceptance level of metallic mineral mining in the state. Additionally, we will determine the barriers that might prevent acceptance of mining. One of our main goals of this study is to present our findings to policy makers in the state government so that they can be as informed as possible of Maine residents' attitudes toward this topic and thereby be able to address any concerns in the proposed rules. The results of this study will be presented to the state legislature during this upcoming session. Additionally, results will be disseminated to interested stakeholders and will also be available at <http://umaine.edu/mitchellcenter/road-to-solutions/projects-a-z/maine-water-resources-research-insititute/>.

Though I am in the preliminary stages of data analysis and therefore do not have any results to report from our study at this time, I do want to present some key findings from another study that may be of use to this board and the legislature.

Should these proposed rules be ratified in the state legislature this upcoming session, the Maine Department of Environmental Protection will have the ability to issue permits for metallic mines. However, an increasingly important concept for the mining industry is what is known as a social license to operate. A social license refers to the acceptance or approval of mining operations by local communities and other stakeholders, who can affect the profitability of those operations (Zhang et al., 2015). We can clearly see within the proposed rules an example of how a social license or lack thereof could impact the profitability of a mining operation.

**Subchapter 1, number 4 Relation to other rules.** This section applies to all exploration, advanced exploration and mining activities. Compliance with the provisions of this Chapter, the permit to mine, and the Act does not:

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- B. Prevent a municipality from regulating or controlling mining or reclamation activities;  
and
- C. Prevent a municipality from regulating the routes, hours, and weights of transportation of ore, rock, tailings, and other mining-related materials on public streets and roads in order to protect the public health, safety, and welfare.

This example demonstrates even after rule changes go into effect and if a mine is permitted by DEP a municipality could still greatly affect the success of that mine. Thus if the local municipality is opposed to the mine then they could create restrictions that could negatively affect its profitability. The lack of a social license can affect mining profitability in other ways, such as protests, public outrage, creating a negative image, law suits, etc.

In a 2015 article, researchers Airong Zhang and Kieren Moffat, studied public acceptance of mining activities in Australia and found that residents were not willing to compromise their environmental concerns even if they recognized that mining created many benefits. They also found that confidence in governance structures played a significant role in residents' level of acceptance. Environmental concerns were offset and level of acceptance increased if residents perceived that there were strong regulations and the government had the ability to hold the mining industry accountable. Conversely, when governance was perceived to be weak, acceptance level significantly decreased even for those residents with low environmental concerns.

If these findings are correct then counter intuitively, strict and clear regulations that reflect the values of the residents of Maine can actually lead to more profitable mining operations and larger economic benefits to Maine and its communities. Strong regulations can also mitigate the strong tensions and length of debates between communities and mining companies. I urge the Board and the other state government entities involved in this process to thoughtfully consider the negative implications of vague language or loose standards on both our cherished natural resources and also the profitability of potential mining activities.

Thank you for your time. I am happy to answer any questions you may have now or in the future.

Studies referenced:

- Zhang, A., Moffat, K. 2015. A balancing act: The role of benefits, impacts, and confidence in governance in predicting acceptance of mining in Australia. *Resources Policy*, 44, 25-34.
- Zhang, A., Moffat, K., Lacey, J., Wang, J., Gonzalez, R., Uribe, K...Dal, Y. 2015. Understanding the social license to operate of mining at the national scale: a comparative study of Australia, China and Chile. *Journal of Cleaner Production*, 108, 1063-1072.