STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

Memorandum

To: Board of Environmental Protection

From: Jeffrey S. Crawford, Office of the Commissioner

Date: August 18, 2016

Re: Chapter 200 Metallic Mineral Exploration, Advanced Exploration and Mining-Proposed Major Substantive Rulemaking

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BACKGROUND:

Mining Legislation. In 2011, the Maine Legislature passed Public Law 2011, Chapter 653, *An Act to Improve Environmental Oversight and Streamline Permitting for Metallic Mineral Mining in Maine*, which directed the Department to promulgate revised rules intended to modernize Maine's mining requirements and consolidate the multiple environmental permits necessary for mining activities.

In addition to updating existing mining-related laws, Public Law 2011, Chapter 653 established the new Maine Metallic Mineral Mining Act (Mining Act) at 38 M.R.S. Section 490-LL *et seq.* The Mining Act provides the statutory framework for the regulation of metallic mineral mining activities by the Department, including but not limited to:

- Administration, rulemaking, and local participation;
- Mining permit application procedures;
- Mining permit duration, termination, revocation, transfer and amendment procedures;
- Performance, operation and reclamation standards;
- Financial assurance requirements;
- Mining and reclamation reporting requirements; and
- Enforcement and violation provisions.

Previous Rulemaking Efforts. A formal rulemaking process for the major substantive mining rules[1] began in mid-September of 2013 when the Department presented its proposed rule to the

[1] The Department initiated routine-technical rulemaking to update and amend the exploration and advanced exploration permitting requirements in its existing mining rules in 2012. That rulemaking provided specific application, permitting and performance requirements for individuals seeking to conduct exploration or advanced exploration activities. The Department completed that rulemaking in March of 2013.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

website: www.maine.gov/dep

Board of Environmental Protection (Board), and requested that a public hearing be held on October 17th of 2013. The Board subsequently received testimony from a large number of consultants, interested parties, and the general public during the public hearing and written comment period. Beginning in early November 2013, the Board held four deliberative sessions to discuss key issues raised by commenters with Department staff. At the Board's request, staff prepared draft language incorporating the Board's suggestions from these deliberative sessions and the revised rule was posted to an additional written public comment period.

On January 10, 2014, the Board reviewed a number of changes to the proposed rule that staff recommended in response to public comments received during the second written comment period. After receiving oral public comment at the Board meeting pursuant to Title 38, section 341-H(3)(C), the Board deliberated and voted to provisionally adopt the proposed rule with several additional changes identified by Board members.

Legislative Review of the Provisionally Adopted Mining Rules. The Department subsequently submitted the provisionally adopted rule to the Maine Legislature for review and approval pursuant to Public Law 2011, Chapter 653 and the Maine Administrative Procedures Act. After extensive deliberation, the Legislature voted to enact L.D. 1772 as amended, which disapproved the Department's provisionally adopted rule and directed the Department to undertake a new major substantive rulemaking effort and submit a new rule to the Legislature by February 1, 2016. Governor LePage vetoed LD 1772 on April 28, 2014, and his veto was subsequently sustained.

In 2015, the Department again submitted Chapter 200 as provisionally adopted by the Board on January 10, 2014 for Legislative review and approval. After extensive deliberation, the Legislature voted against L.D. 146, and again did not authorize final adoption of the rule.

THE RULEMAKING PROPOSAL

Although the Department's existing Chapter 200 Metallic Mineral Exploration, Advanced Exploration and Mining rules (last amended April 21, 2013) remains in effect, a number of the licensing requirements in the existing rules are inconsistent with the Mining Act. While this inconsistency does not prevent the submission and processing of a mining permit application, it creates numerous ambiguities that would need to be addressed on a case-by-case basis without the regulatory certainty provided by detailed rules. The Department is now proposing to promulgate a new mining rule that will repeal and replace the existing Chapter 200 regulations, and provide a comprehensive application and permitting process within the statutory framework for exploration, advanced exploration and mining activities established in the Mining Act.

The proposed rule is based on the 2014 provisionally-adopted rule, but incorporates revisions to address a number of environmental, technical and legal concerns expressed by Legislators, Board members, and a large number of stakeholders during the prior rulemaking proceedings and the numerous legislative hearings and work sessions. Like our earlier proposal, the new draft rule

establishes tiered requirements for exploration, advanced exploration, and mining activities that reflect the potential impact of these activities on the environment and public health and safety. For example, mining activities are subject to more extensive requirements than exploration activities, which are limited in scope and less likely to pose significant environmental and public health risks.

— **Exploration**

Exploration activities are mining activities that are conducted to determine the location, extent and composition of metallic mineral deposits. Typically performed by hand sampling, test drilling or the digging of test pits, exploration activities are limited to no more than one acre in total area, and do not require a permit. Instead, persons conducting exploration activities are required to submit an exploration work plan prepared by a qualified professional prior to initiating any activities at an exploration site and meet a number of performance standards designed to protect natural resources and properly restore the exploration site. Persons conducting exploration activities are also required to submit a closure report documenting that all restoration plan requirements have been completed.

— **Advanced Exploration**

Advanced exploration activities involve more extensive sampling for the purpose of determining the feasibility, method, or manner of extracting and processing metallic minerals, and have greater potential impacts on the environment and public health and safety. The Department's proposal bifurcates advanced exploration activities into two general permit categories based on their potential environmental and public health and safety impacts. Tier One advanced exploration activities involve the excavation and removal of up to 2,000 tons of mine waste, while Tier Two advanced exploration activities may involve up to 10,000 tons of mine waste[2].

Under an advanced exploration mining permit, the on-site processing of samples is limited to mechanical size alteration (crushing) and sorting; chemical or other treatment of ores is not allowed. All testing and characterization must take place in enclosed facilities, and all waste generated from on-site testing and characterization must be transported off-site for proper disposal.

Tier One advanced exploration activities, which typically involve larger scale trenching or blasting than allowed under an exploration work plan, require a permit from the Department. In addition to meeting the exploration work standards, persons conducting Tier One advanced exploration activities must also meet blasting standards, financial assurance requirements, and submit a reactive mine waste characterization plan that analyzes the potential for forming reactive mine wastes (e.g., acid rock drainage) and specifies measures to monitor, limit and control any acid rock drainage or metal leaching.

Applicants for a Tier Two advanced exploration permit must also submit (in addition to the requirements for Tier One advanced exploration) a baseline site characterization report, an environmental impact assessment, interim and final closure plans, and plans for the management of excavation and processing wastes.

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[2] Mine waste means all material removed from the earth during advanced exploration or mining, including but not limited to, overburden, rock, lean ore, leached ore or tailings.

— **Mining**

Mining activities which involve the excavation of 10,000 tons of mine waste or more are subject to a comprehensive suite of requirements. Since mining at this scale has the greatest potential impact on the environment and public health and safety, mining activities are subject to a more extensive review process and must meet additional stringent performance standards. Some of the more notable requirements of the proposed rule include the application requirements (including public participation), financial assurance requirements, performance and design standards and monitoring requirements.

DISCUSSION

As previously noted, the Department's new rulemaking proposal addresses a large number of the environmental, technical and legal concerns expressed by stakeholders during the previous rulemaking effort. Some of the more significant revisions include:

- Prohibiting "block caving."
- Clarifying the definition of "mining area" to better incorporate legislative intent.
- Prohibiting perpetual care, or the use of active mine waste treatment for more than 10 years post-closure.
- Prohibiting the use of wet mine waste units after closure.
- Increasing the thresholds for Tier One and Tier Two advanced exploration to 2,000 and 10,000 tons of mine waste, respectively. This change is being proposed in recognition that all material (including topsoil and other overburden) removed from an advanced exploration site is counted towards the tonnage limit, and must be tested for reactivity.
- Establishing specific baseline water quality monitoring and testing requirements for metallic elements, toxics and radionuclides.
- Clarifying and enhancing public participation requirements and opportunities.
- Strengthening the financial assurance requirements, including:
    - Requiring full funding of the financial assurance mechanism(s) prior to the issuance of a permit.
    - Incorporating additional protections for the State in the event of a bankruptcy by the Permittee or financial assurance trustee.
    - Increasing the financial assurance contingency requirement from 15% to 20%.
    - Establishing additional requirements for the release of financial assurance (including public participation).
    - Establishing standards for the forfeiture of the financial assurance to the Department.
- Revising the siting restrictions to reflect the Department's limited authority to restrict mining on state-owned lands.
- Revising the groundwater monitoring requirements to require timelier submittal of monitoring data and provide for the use of continuous pH and specific conductivity monitors.

- Requiring monthly monitoring for most parameters in surface water, along with continuous monitoring of (including, but not limited to) water depth, specific conductance, pH, temperature and dissolved oxygen.

The Department's proposal is a technically sound approach to regulate metallic mineral mining exploration, advanced exploration and mining under the Mining Act while maximizing protection of public health and the environment.

REQUESTED ACTION:

The Department is requesting that the Board schedule proposed Chapter 200 to a public hearing on September 15, 2016.