

NON-TECHNICAL EXECUTIVE SUMMARY

Sustainable development in Canada's North is a priority for Environment Canada (EC). The Department provides scientific expertise for use in decisions on developments, so that all parties working together can ensure there is minimal impact on the natural environment, and ecosystems are protected. Toward these goals, EC has reviewed the Agnico-Eagle Mines Ltd. (AEM) water licence application for the Meadowbank Gold Project, along with the supplementary information that has been provided to the Nunavut Water Board (NWB).

Environment Canada's submission focuses on issues related to environmental effects on or related to water quality and waste management, to the extent it may affect water quality. Overall, EC was pleased with the quality of the information provided by AEM, and appreciates that the proponent and their consultants have worked cooperatively with EC throughout the course of the review of this application. As a result, AEM has already committed to implement some of the recommendations presented in this submission, and the following are those areas which require more work or clarification:

Water Quality:

EC finds the proposed monitoring plan for dike construction and lake dewatering to be sound, with some minor points to be clarified/amended, and recommends it be implemented.

EC recommends that a comprehensive and consolidated Aquatic Effects Monitoring Plan should be prepared as a condition of the Water Licence.

With respect to the site water monitoring, the framework provided in the Water Quality and Flow Monitoring Plan and the proposed amendments are a reasonable start, but should be further refined to ensure sufficient data are collected for management purposes as well as to inform the AEMP.

There are concerns with ammonia concentration predictions being underestimated due to cyanide breakdown products not being fully included, and AEM has committed to monitoring and updating modeling predictions for this. Source control of explosives will also be enforced by AEM.

At closure, the mined out pits will be refilled with water, and once they meet guidelines for water quality the dikes will be breached. EC has raised questions about pit water quality in respect of groundwater coming in, and asks AEM to do further groundwater sampling and re-run the model with more data.

To provide better information for pit water quality predictions, EC recommends that the proponent develop a groundwater monitoring plan which addresses the concerns identified with previous data presentation, and which identifies sites for more robust permanent ground water quality monitoring wells. These should be installed at the Meadowbank site as soon as possible and ground water quality samples collected and analyzed to establish baseline ground water quality at the permanent sites prior to the start of active mining.

Effluent Quality Criteria:

AEM has worked collaboratively with EC on proposing discharge limits which are protective of the aquatic receiving environment and achievable. EC has made recommendations for lower chloride limits, for including turbidity as a dewatering discharge criteria, setting criteria for camp wastewater discharges, and adding cyanide and hydrocarbons to the parameters monitored.

Tailings and Waste Rock Management:

EC questioned the proposed thickness of cover to be used for capping tailings and waste rock. AEM committed to use the minimum of two meters inert rock cover to confine the active layer, and to instrument the cover to measure freezeback efficiency and cap performance, plus to review and evaluate future changes and respond with appropriate management action. EC recommends that AEM's commitments be included in a rock management plan, to be updated periodically as data are collected.

EC had requested more specifics on contingency plans in the event the preferred waste rock management approach was inadequate, and acknowledges that the proponent is committed to using adaptive management. However, EC would like some concrete examples of available options.

EC also requests a plan for mine rock segregation, noting that there are confounding factors which can make segregation difficult. AEM has committed to update and adapt the plan as additional data is obtained.

Waste management:

Incineration of wastes at the project site has the potential to be a significant source of dioxins, furans and mercury, which can contaminate soil, vegetation and water. AEM has agreed to install an appropriate incinerator and to do annual stack testing to show that their incinerator is in compliance with the Canada-wide Standard for dioxins and furans and mercury. Best practices should be used for ash disposal.

Landfarm concerns have been substantially addressed.

Emergencies:

EC has no outstanding points with respect to Emergencies planning, including hazardous material management and spill contingency planning. Our intervention documents aspects agreed to by the proponent at the recent technical meetings.

Closure and Reclamation:

AEM has satisfactorily addressed the issues raised by EC in the technical meeting, and points of agreement are noted in our intervention, along with minor points to be followed up on.

Environment Canada would like to thank the NWB for the opportunity to comment on the Meadowbank Gold Project water licence application, and we hope that these technical comments and recommendations are useful to the NWB in their decision making process. Environment Canada respectfully requests the opportunity to submit additional written comments after the public hearings to address any new information brought forward at the hearings.