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March 13, 2026

M E M O R A N D U M

TO: Antonia Testa
Special Project Officer
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FROM: Laura Maharaj
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Drinking Water and Environmental Compliance Division
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RE: Impact Assessment Agency of Canada (IAAC) Draft Environmental Assessment
Report – Springpole Gold Project
Hydrogeology and Groundwater Review
ECHO 1-1586697704

Introduction

The Impact Assessment Agency of Canada (IAAC) released its Draft Environmental Assessment (EA) Report for the proposed Springpole Gold Project on February 27, 2026, for review and comment.

This memorandum provides hydrogeology and groundwater-related comments on the Draft EA. The focus of this review is seepage from the Co-Disposal Facility (CDF) and associated mine components, related subsurface flow and preferential groundwater pathways, and the potential delivery of contaminant mass to Springpole Lake and Birch Lake.

From a hydrogeological perspective, these elements are relevant to IAAC's identified pathways of effects under section 5 of the Canadian Environmental Assessment Act (CEAA) 2012, including

potential adverse effects to fish and fish habitat and potential effects on the health of Indigenous Peoples resulting from changes to groundwater and surface water quality due to seepage and effluent discharge.

Overview of IAAC Draft Environmental Assessment

- The Draft EA recognizes that not all runoff and seepage would be captured by the water management system, and that a portion of seepage would bypass collection systems and enter the receiving environment.
- The Draft EA concludes that predicted concentrations at modelled receiving-environment locations would remain within applicable criteria. However, uncertainties related to seepage contaminant mass, preferential groundwater pathways and localized shoreline discharge are not fully characterized. Additional clarification in these areas would improve confidence in the predicted groundwater transport and receiving-environment concentrations.
- From a hydrogeologic perspective, the EA would benefit from improved characterization of subsurface structure and preferential groundwater pathways beneath and adjacent to the proposed CDF, which remains necessary to support confidence in predicted groundwater transport, shoreline groundwater discharge, the total seepage-related loading entering Springpole Lake and Birch Lake, and the proposed adaptive management and contingency measures.
- These uncertainties are relevant to IAAC’s assessment of effects on fish and fish habitat as groundwater seepage may discharge at localized seepage-face or nearshore locations where concentrations may be higher prior to dilution. As noted in the Draft EA, this may result in an underestimation of acute toxicity to aquatic life.
- The Draft EA relies, in part, on adaptive management, groundwater and surface water monitoring programs, and future provincial permitting processes to manage groundwater-related risk.

MECP Hydrogeology Position and Conclusion

The Draft EA appropriately recognizes that seepage from the CDF and related mine components would occur, and that monitoring, adaptive management, and contingency measures are proposed.

However, from a hydrogeologic standpoint, confidence in the predicted groundwater transport and shoreline groundwater discharge behaviour remains dependent on a clearer characterization of seepage concentrations, subsurface structure, preferential groundwater pathways and associated uncertainty.

Where transport may be controlled by discrete fractures or other transmissive structural features, trigger-based monitoring and contingency measures may be less reliable unless the relevant groundwater pathways are first adequately characterized. In such cases, it should be demonstrated that monitoring locations are capable of intercepting pathway-specific groundwater discharge and that proposed contingency measures would be hydraulically effective under site-specific conditions.

These concerns are relevant to IAAC’s assessment of effects on fish and fish habitat, particularly where seepage may discharge at localized seepage-face or nearshore locations.

From a hydrogeological and groundwater perspective, the Draft EA does not contain any significant inaccuracies. However, the considerations identified above remain relevant to IAAC's assessment of groundwater-related environmental risk.

Through its review of the provincial EA, the MECP has previously identified these concerns and considers them addressable through the provincial EA process and associated EA conditions, provided the proponent develops a feature-specific structural interpretation of the CDF, bounds contaminant concentrations and seepage mass flux, and transparently documents uncertainty through sensitivity analyses in groundwater and receiving-environment predictions.

References

Canadian Environmental Assessment Act, 2012, SC 2012, c 19, s 52, s 5

Impact Assessment Agency of Canada (IAAC). (2026, February 27). Email from Amy Sen, Director, Ontario Region, to Provincial Directors: *Invitation to comment on the Draft Environmental Assessment Report and Draft Potential Conditions for the Springpole Gold Project*.

Impact Assessment Agency of Canada (IAAC). 2026. Draft Environmental Assessment Report: Springpole Gold Project. February 2026. Impact Assessment Agency of Canada, Ottawa, Ontario.

Statement of Limitations

The purpose of the preceding review is to provide advice to the Ministry of the Environment, Conservation and Parks regarding groundwater and subsurface conditions based on a review of the information provided in the above referenced documents. The conclusions, opinions and recommendations of the reviewer are based on information provided by others. The MECP cannot guarantee that the information that has been provided by others is accurate or complete. A lack of specific comment by the reviewer is not to be construed as endorsing the content or views expressed in the reviewed material.

<Original signed by> _____

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