



Environment Canada
 Prairie and Northern Region
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 Your File: EA1011-001

Paul Mercredi
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 Mackenzie Valley Environmental Impact Review Board
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Via email: pmercredi@reviewboard.ca

Re: Technical Scoping Comments on the Avalon Rare Metals Inc.’s Nechalacho Rare Earth Element Project – Thor Lake Property

Thank you for the opportunity to provide input to the Mackenzie Valley Impact Review Board (MVEIRB) regarding the scope of Avalon Rare Metals Inc.’s Nechalacho Rare Earth Element Project Proposal. Environment Canada has no regulatory authorizations associated with this project; however, EC will be providing specialist advice related to the protection and conservation of the environment pursuant to our mandated responsibilities under the *Canadian Environmental Protection Act*, the *Metal Mining Effluent Regulations* and Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Proposed Scope of Project

Environment Canada (EC) recommends that the scope of the project include, but not be limited to, those physical works and the activities associated with the construction, operation and decommissioning (including closure and reclamation) of the Nechalacho Rare Earth Element Project Proposal that have the potential to impact on areas of federal jurisdiction under EC’s mandate, including:

Project Components		Potentially Affected Areas of Jurisdiction
Thor Lake Site	Underground Mine	- ground water quality - surface water quality
	Flotation Plant	- surface water quality - air quality - migratory birds - species at risk
	Tailings Management	- surface water

	Facility and associated water retention structures, pipelines and site water management	<ul style="list-style-type: none"> quality - groundwater quality - species at risk - migratory birds
	Camp facilities	<ul style="list-style-type: none"> - surface water quality - air quality - migratory birds - species at risk
	Mine Haul Roads	<ul style="list-style-type: none"> - surface water quality - air quality (from vehicle use) - migratory birds - species at risk
	Waste Rock Piles	<ul style="list-style-type: none"> - surface water quality - air quality - migratory birds - species at risk
	Diesel generators and associated fuel tanks	<ul style="list-style-type: none"> - surface water quality - air quality
	Incinerator	<ul style="list-style-type: none"> - surface water quality (contaminant loading) - air quality - migratory birds - species at risk
	Dock Facility	<ul style="list-style-type: none"> - surface water quality - migratory birds - species at risk
Air Strip	Airstrip and associated infrastructure	<ul style="list-style-type: none"> - migratory birds - species at risk
Barge route on Great Slave Lake	Barge traffic	<ul style="list-style-type: none"> - migratory birds - species at risk
Hydrometallurgical Plant	Camp facilities	<ul style="list-style-type: none"> - surface water quality - air quality - migratory birds - species at risk
	Tailings Management Facility	<ul style="list-style-type: none"> - surface water quality - groundwater quality - species at risk - migratory birds
	Coal and Lime Storage	<ul style="list-style-type: none"> - surface water quality - air quality

	Haul Road	<ul style="list-style-type: none"> - surface water quality - air quality (from vehicles) - migratory birds - species at risk
	Power generator	<ul style="list-style-type: none"> - air quality - surface water quality (contaminant loading)
	Dock Facility	<ul style="list-style-type: none"> - surface water quality - migratory birds - species at risk

Factors to be Considered

EC recommends that the following factors be considered in the environmental assessment of the Nechalacho (Thor Lake) Project:

Potential Accidents and Malfunctions

The scope of the assessment should include consideration of the potential accidents, malfunctions and unplanned events that could occur in any phase of the project, the likelihood and circumstances under which these events could occur, the environmental effects that may result from such events and mitigation measures to help lessen any potential impacts.

Follow-up/Monitoring Program

A follow-up program should be designed to verify the accuracy of the environmental assessment, determine the effectiveness of mitigation measures, and identify unpredicted changes that are occurring before environmental impacts are caused. Environment Canada recommends that the environmental assessment describe the follow-up program and its associated requirements in sufficient detail that reviewers can evaluate the proponent's ability to meet these objectives. This program framework should be compatible with other regulatory monitoring requirements.

Cumulative Effects Assessment

The scope of the assessment should include components contributing to cumulative effects. A thorough Cumulative Effects Assessment will help determine if aspects of the project will have a larger impact on the environment due to additional activities occurring near or within the proposed project area.

Species at Risk

Section 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, Environment Canada suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those

designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner.

Environment Canada recommends that the scope of the assessment include consideration of all Species at Risk that could be encountered or affected by the project and that any potential adverse effects of the project to the species, its habitat, and/or its residence noted. All direct, indirect, and cumulative effects should be considered. The Terms of Reference should also request that the developer outline strategies for mitigation and monitoring of potential adverse effects to Species at Risk.

Migratory Birds

Environment Canada recommends that the scope of the assessment include consideration of any potential adverse effects to migratory birds and their habitat, as well as strategies for mitigation and monitoring.

Assessment of potential effects on migratory birds should consider not only impacts to nesting birds but also any potential disturbance to birds during other key periods such as migration, brood rearing, moulting and staging.

Thank you for the opportunity to provide comments on the scope of the Nechalacho Project Proposal. Environment Canada looks forward to continuing to work with the MVEIRB and Avalon Rare Metals Inc. in the review of this project.

Please do not hesitate to contact me at (867) 669-4772 or savanna.levenson@ec.gc.ca with any questions or comments with regards to the foregoing.

Yours truly,

A handwritten signature in black ink, appearing to read 'SL', followed by a period. The signature is written on a light-colored background.

Savanna Levenson
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c.c: Carey Ogilvie, Head EA North, Environment Canada
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