

February 16, 2024

Submitted via <https://www.letstalknaturalresources.ca/lets-talk-canadas-critical-minerals-list/surveys/feedback>

Re: Update of Canada's Critical Minerals List and methodology¹

We appreciate the opportunity to contribute to the consultation regarding the *Update of Canada's Critical Minerals list and methodology*, which we undertake on behalf of Wildlife Conservation Society (WCS) Canada (www.wcscanada.org). Our involvement encompasses research and policy initiatives in northern boreal and Arctic regions, where substantial mineral deposits exist, and future mineral potential is considered to be high. Our expertise is in land use planning, impact assessment, climate and biodiversity policy, key biodiversity areas, and species and ecosystem science. Our mission is to save wildlife and wild places through novel research and policy interventions, including on pressing threats such as mineral exploration and development, which we track closely in several provinces² and territories. Our engagement with Natural Resources Canada on the development of Canada's Critical Minerals Strategy³ resulted in acknowledgement in the strategy of the risks associated with mineral resource development in globally-significant peatlands.

We preface our comments by acknowledging that Canada's climate commitments necessitate a technological shift that will create new demands for non-renewable natural resources compared to conventional fossil-fuel-based transportation and electricity generation technologies. Yet, as highlighted by the International Energy Agency (IEA), “[c]ritical mineral supply chains cannot be truly secure, reliable, and resilient unless they are also sustainable and responsible”.⁴ Given the List's pivotal role in prioritizing and advancing project development, there exists a high potential for a significantly larger material footprint resulting from the growth-inducing social and environmental impacts⁵ associated with the escalation of such activities. In this vein, we have two major (and related) concerns about the proposed approach to develop Canada's Critical Minerals List:

- 1) The proposed listing approach, reflecting the Critical Minerals Strategy, assumes that future project-level impact assessments and permitting processes will adequately address any social and environmental impacts that result from the development of minerals designated as critical. However, it overlooks the necessity for early, proactive management of the often-inevitable regional-scale cumulative impacts.
- 2) The criteria fail to take into account broad public interest considerations. The narrow focus on primarily economic considerations neglects important social and environmental risks associated with mineral exploration, extraction and use that need to be considered as early as possible.

¹ https://www.letstalknaturalresources.ca/lets-talk-canadas-critical-minerals-list?_gl=1*npvete*_ga*MTI5NDIzMjI3OS4xNjg3MDE5Njk5*_ga_C2N57Y7DX5*MTcwNjk4MjI2NC4yNC4wLjE3MDY5ODIyNjQuMC4wLjA

² <https://www.facebook.com/MineralTrackerON/>

³ <https://wcscanada.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?EntryId=44992&PortalId=96&DownloadMethod=attachment>

⁴ IEA (2023), Sustainable and Responsible Critical Mineral Supply Chains, IEA, Paris

<https://www.iea.org/reports/sustainable-and-responsible-critical-mineral-supply-chains>, Licence: CC BY 4.0

⁵ Johnson, C.J. et al. (2020). Growth-inducing infrastructure represents transformative yet ignored keystone environmental decisions. *Conservation Letters*. <https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/conl.12696>

We have four recommendations (which we elaborate on below): 1) **commit to a strategic assessment** of Critical Minerals with the release of the updated List; 2) **bolster the criteria** to incorporate environmental and social sustainability, with attention to federal jurisdiction and climate commitments; 3) publish an **updated List with information on its purpose and relevant mineral characteristics**; and 4) **include experts and civil society organizations** in targeted consultations regarding criteria and their application.

Recommendation 1: Commit to a strategic assessment on Critical Minerals development to accompany release of an updated List.

Since the Strategy's publication, several regions in Canada have witnessed a surge in claim-staking and exploration activities. Without strategic oversight, this trend may intensify environmental and social pressures in these regions during the early stages of development. Canada must recognize the importance of proactive planning to mitigate these pressures, instead of relying solely on project-level mitigation for future risks. Moreover, early planning is economically beneficial for assessing the viability of projects, particularly considering the geological and metallurgical complexities associated with many Critical Minerals deposits.

Mineral resource potential is unevenly distributed across Canada's land mass, but the same is also true for the social and environmental values of our lands. Mineral endowment is controlled by geological factors, but other intrinsic values reflect biological and environmental influences, as well as Human history and culture. Many known Critical Minerals reserves, and potential future resources, occur where the relationships between governments, proponents, and First Nations, Metis and Inuit are governed by complex socio-political contexts. These regions are also significant carbon stores and sinks, especially in the form of peatlands, of which Canada is responsible for a quarter of the global extent. Uncontrolled development in such regions poses a considerable risk of added greenhouse gas (GHG) emissions that may outweigh emissions reductions from clean energy technologies that use the extracted resources. Auditing the benefits and costs in terms of emissions is intrinsically complicated, but any irresponsible rush for development may ultimately hinder Canada's ability to meet emissions reduction targets.

An anticipatory strategic assessment focused on Critical Minerals in Canada could address any proposed or existing Government of Canada policy, plan or program that is relevant to conducting project assessments (Impact Assessment Act or IAA, 2019, sec. 95). The core role of this instrument is to provide clear, credible and authoritative guidance for deliberations and decision making on physical activities, including (but not limited to) projects subject to assessment under the IAA⁶. A robust strategic assessment would consider the pace and scale of development and how to best meet the need for these minerals within a sustainability framing (climate-neutral and nature-positive) and a truly circular economy⁷. It would promote the development of region-specific solutions where Critical Mineral deposits are mapped against the geography of ecological and social risk.

⁶ Gibson et al. (2020) Synthesis at the nexus of sustainability assessment, regional/strategic assessment and Indigenous partnerships. Report prepared for the Social Sciences and Humanities Council of Canada and the Impact Assessment Agency of Canada. https://uwaterloo.ca/applied-sustainability-projects/sites/default/files/uploads/documents/gibson_et_al_ks_rpt_sept_2020_0.pdf.

⁷ This includes establishing strong oversight via policy that requires cradle-to-cradle production and recycling/reuse (for all relevant products) in parallel with required pre-assessments of what/how much "new" extraction is needed following this sequence. This should also be linked to increased support for innovation in technology including enhanced batteries with maximum storage for EVs etc.

The only path to security of supply is through free, prior, and informed consent and meaningfully demonstrated environmental and social protection. This will enable decision makers to be more realistic and transparent about the compromises involved in Critical Mineral development, including potential impacts on carbon storage and impacts on the environment and Indigenous self-determination. The ideal result of such an approach would be a “lowest possible impact” hierarchy for meeting future needs rather than uncontrolled development in areas that are demonstrably more valuable for other purposes. It would also avoid the potential for policy incoherence with respect to Canada’s climate ambition and other commitments, and transparent consideration of sustainability trade-offs. The alternative is to stray well beyond ecological limits and a potential loss of credibility for Canada as a provider of ‘clean energy’ or ‘green’ materials.

Recommendation 2: Bolster the criteria to include consideration of whether the mineral is able to be developed in an environmentally and socially sustainable manner, with special attention to areas of federal jurisdiction, including Canada’s climate commitments.

Taken together, the proposed criteria do not constitute a reasonably comprehensive representation of either Federal Government responsibilities or the broader public interest. The descriptions provided for all five criteria in this consultation are overly vague, making it difficult to understand how they will be applied to revise the 2021 Critical Minerals List.

Criteria 2 and 3 both include the term 'sustainable' in their titles. However, the descriptions provided do not sufficiently delineate whether sustainability is inclusive of environmental and social considerations or is primarily focused on economic aspects. To be deemed critical, it should be demonstrated that the development of a mineral can occur in an environmentally and socially sustainable manner, with special consideration to Indigenous self-determination, land-use impacts, and climate considerations -- all of which are areas of federal jurisdiction. This includes attention to a truly circular economy and to fairly addressing obligations left to future generations, such as mine clean up or broader landscape impacts. Canada must consider carefully how to demonstrate with sufficient confidence in all jurisdictions across Canada that we have “a sustainable and ethical mineral supply chain” (criterion 3).

Recommendation 3: Publish an updated Critical Minerals List with information about how the List will be used and key characteristics of the minerals that are relevant to such use.

Neither the List nor the Strategy provide any clear indication of the purpose of the List. Full transparency regarding how Canada intends to use it is crucial for the development of targeted and effective policies. Most initiatives championed by Canada emphasize the importance of critical minerals in 'clean' energy, technologies, and emissions reduction efforts. Yet, the proposed criteria encompass various purposes beyond facilitating the transition to green energy. Consequently, programs like the Critical Minerals Infrastructure Fund may inadvertently promote mineral development for purposes unrelated to climate action, hindering Canada’s ability to fulfill its climate commitments by diverting private and public investment (e.g., tax expenditures) and resources. The growing usage of Critical Minerals terminology across media, industry, politics, and civil society underscores the need for a common understanding of the List’s purpose and clear criteria to guide its application.

Accordingly, we strongly recommend that the updated List be presented with the following additional information (i.e., beyond a simple list of minerals)⁸, to be updated every 2-3 years:

- 1) the anticipated uses of the List;
- 2) the extent to which each mineral meets each of the criteria, and the weighting of, and relationship between, the criteria;
- 3) the main or selected uses of each mineral;
- 4) whether each mineral is commonly a primary product, a byproduct, or a co-product; and
- 5) any relevant sustainability considerations particular for each mineral.

Recommendation 4: Ensure inclusion of experts and civil society organizations in consultation on further guidance around the criteria and their application.

We note the stated intent for NRCan to conduct “targeted consultation sessions” on the development of these criteria (and associated methodology) with provinces and territories, industry associations, and Indigenous groups. Like the Regional Energy and Resource Tables⁹, this leaves out the participation of experts (e.g., ecologists, geologists, social scientists, etc.) and civil society organizations that have essential relevant expertise and experience related to sustainability and impacts of mineral exploration and development. Addressing any and all of the above three recommendations will require broader targeted consultation.

Thank you for the opportunity to provide input. We would certainly be open and interested in any further discussions on this important topic.

Submitted by Justina Ray, President & Senior Scientist; jray@wcs.org.

⁸ See recent discussions in Simandl (2023) Critical materials - global outlook and Canadian perspective. J Miner Sci Materials 4: 1057 and Kerr (2023) Critical Minerals in the Context of Canada: Concepts, Challenges and Contradictions Geoscience Canada, v. 50, <https://doi.org/10.12789/geocanj.2023.50>

⁹ <https://natural-resources.canada.ca/climate-change/regional-energy-and-resource-tables/24356>