

New peer-reviewed study: Loophole in BC's Environmental Assessment (EA) process could harm freshwater ecosystems and dependent communities

CONTEXT

After EA approval, mining companies can apply to the government of BC for amendments which alter a project's undertakings (e.g., adding tailings ponds facilities, expanding project footprint, additional watercourse crossings, etc.). The amendment process lacks transparency and the subsequent changes allowed by amendments may harm water resources in BC in ways not covered by the original EA certificate. The new study finds the amendment process lacks opportunities for public and scientific scrutiny as well as lacks sufficient substantiation as to protect British Columbians from the harmful impacts of changes to projects.

SUMMARY

- We reviewed amendment applications, success of these amendments, and potential impacts to water resources of the 23 mines awarded EA certificates between 2002 and 2020.
- 61% of approved mining projects in BC received an amendment. Of these, we deemed 20 of the approved amendments (associated with 10 projects) likely to cause harm to water resources via serious pollution, damage to fish or fish habitat, erosion, or other factors.
- We are concerned that post-certificate amendments bypass the regular EA process to add or change project elements in ways that receive little to no public and scientific scrutiny and allows projects to expand in ways that can lead to environmental harms.

METHODS & FINDINGS

We examined all amendment documents for mines that underwent provincial EAs in BC 2002-2020. **Fifteen of 23 approved mines (65%) requested amendments**, totalling 49 amendments. Of requested amendments, **98% were approved**. Most mines applied for their first amendment **within three years of receiving their EA certificate**. Ultimately, over 60% of mining projects issued certificates by the BC Environmental Assessment Office (BCEAO) between 2002 and 2020 received some form of amendment to their certificate *after* the conclusion of the EA process.

The method used by the BCEAO to classify amendments as non-material, simple, typical, or complex was **inconsistent**, despite having ramifications on the assessment process through public and Indigenous consultation and fees paid by proponents. We expect that **42% of the approved amendments would directly or indirectly negatively impact water resources**. Worryingly, there was **a lack of specific, quantitative evidence to make an informed prediction** about impacts to water resources (unlike in documents associated with the main EA review).

Example (one of many): In 2006, the Wolverine Coal Mine sought an amendment to expand mining activities and increase production by 50% just a year after receiving its EA approval. Increased potential for metal leaching, particularly selenium, and acid rock drainage from increased overburden were predicted to cause negative effects on water quality and aquatic life. The mine's **seventh amendment** was awarded almost 15 years later for further expansion to incorporate an additional pit with predicted changes in surface water quality due to waste rock dumps, coal storage areas, and from tailings storage.

More amendments were approved under the NDP government than the prior Liberal government (Figure 1), although we believe this is related to proponents applying in advance of cost increases for amendments specified in the 2018 BC *Environmental Assessment Act*.

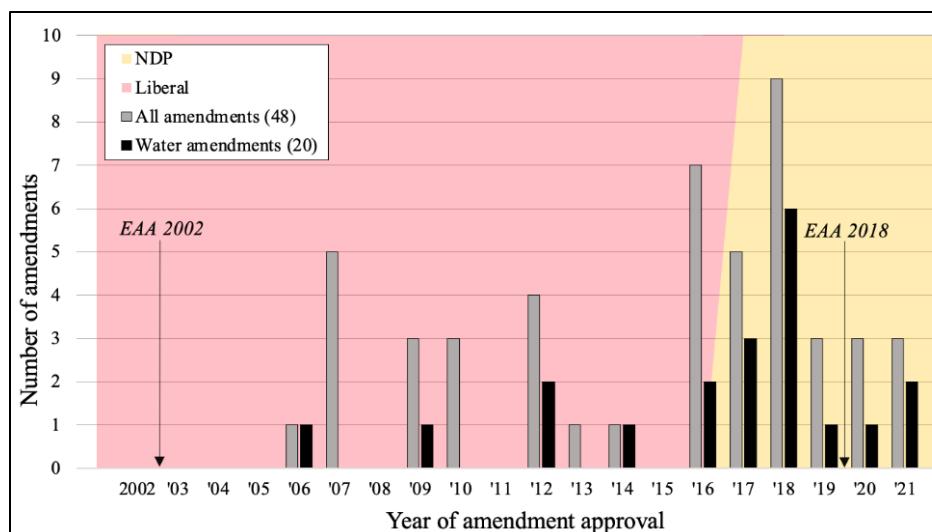


Figure 1: Number of amendments approved for mines overall and as related to water by year and political party in majority power (Liberal in red and NDP in orange)

RECOMMENDATIONS

We are very concerned that British Columbia's water resources are at risk due to poor oversight during the EA amendment process. We urge the BCEAO and Province of BC to improve transparency and limit harms to water resources through the amendment process via:

1. Ensuring that all documentation related to amendments is written in clear and enforceable language and that proponents are required to give detailed quantitative descriptions and predictions of proposed changes and their predicted impacts in amendment applications;
2. Developing, publishing, and enforcing standardized definitions of amendment complexity to ensure transparency and accountability in amendment assessment processes chose;
3. Following the Auditor General of BC (2016) recommendation for regulatory language that includes measurable criteria such as thresholds and timing to be included in all future mining permits and amendments; and,
4. Clearly specifying a public comment or engagement phase when amendments have the potential to affect water quality, quantity, and/or valued water-related components.

FURTHER INFORMATION

We would be pleased to meet with you and/or provide an embargoed copy of the paper to discuss our new research and its implications. We will be presenting this work at IAIA2022 in Vancouver, May 4-8 and would be pleased to meet in person at that time or to arrange a meeting at your convenience. Contact:

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Citation for peer-reviewed paper: Collison, B. R., Reid, P. A., Dvorski, H., Lopez, M. J., Westwood, A. R., Skuce, N. (In press). Undermining environmental assessment laws: post-assessment amendments for mines in British Columbia, Canada, and potential impacts on water resources. *FACETS* 7, 1-28. [dx.doi.org/10.1139/facets-2021-0106](https://doi.org/10.1139/facets-2021-0106). Link becomes active when study is published on April 28.