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To: Mineral Development Strategy Panel

Submitted via e-mail:

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**Re: Response to Request for Comments
Yukon Conservation Society
Second Written Submission**

To the YMDS Panel

The Yukon Conservation Society (YCS) is a grassroots environmental non-profit organization, established in 1968. Through a broad program of conservation education, input into public policy, and participating in project review processes, we strive to ensure that the Yukon's natural resources are managed wisely, and that development is informed by environmental considerations.

YCS is not opposed to mining, as long as it is done in appropriate areas, uses best environmental practices, and has comprehensive and adequately funded closure plans. YCS recommends an urgent shift in mining's focus and behaviours, to immediately address the changing climate and to move towards a more sustainable economy. YCS has the following comments on the above referenced project.

YCS is submitting this second written submission. This follows on from our on-line presentation (available at http://yukonconservation.org/docs/YCS_YMDS_Presentation_May_2020.pdf) and discussion YCS had with the panel on May 1st, 2020, and further to the first written document (available at http://yukonconservation.org/docs/YCS_letter_re_Mining_Act_Changes_July_2013.doc) provided following that discussion.

Wetlands

The Yukon is developing a Wetlands Policy. The impetus for the policy arose from the Yukon Water Strategy (available online at <https://yukon.ca/en/yukon-water-strategy-five-year-report>)



The Yukon government involvement in the Wetlands Policy is led by the Department of Environment, with significant contribution from Energy Mines and Resources (EMR).

While protecting wetlands by affording them special status through a Wetlands Policy is an environmental issue, the impacts to wetlands that the policy seeks to avoid, mitigate or compensate for will mostly be regulated by EMR.

A significant impact to wetlands, and arguably the major driver for the development of a Wetlands Policy, is mining, particularly Placer Mining.

Yukon government, First Nation governments, and some stakeholders are working on developing guidelines for placer miners that plan to work in wetlands. An impediment to completing the guidelines is that the Wetlands Policy is incomplete.

Therefore, it is the opinion of YCS that the MDS must address how wetlands are approached, if only because mineral development so often impacts wetlands.

YCS accordingly provides the following suggestions to the Yukon Mineral Development Strategy (YMDS) panel to include in the YMDS regarding wetlands.

- **A section of the YMDS must be dedicated to the protection of wetlands.**
- **All mineral development projects that impact a wetland, directly or indirectly must submit a Wetlands Reclamation Plan to the Yukon Water Board, for approval, as a provision of their Water Licence.**
- **To be clear, there must be an opportunity for public review of Wetlands reclamation plans as part of the review required to obtain a Water Licence.**
- **In the short term, during the development of an approved Wetlands Policy and in the absence of a set of guidelines for working in wetlands, informed by the Wetlands Policy, Wetlands Reclamation Plans must be approved by the Chief of mining lands, after consultation with First Nations and Stakeholders.**

Royalties, Taxation, and Public Transparency

YCS has previously commented on Yukon placer and hard-rock royalties to the YMDS Panel. Further to that consideration should be given to making publicly available details on the corporate income taxes paid by each mine and increasing the transparency on the gross revenues and profits generated by each mine. This will provide a clearer picture on the financial contribution mining might be making to the Yukon.

It is worth mentioning that publicly traded companies list this information in their annual reports but private or state-owned companies do not necessarily provide this information.



YCS suggests to the YMDS panel that recommendations be made regarding transparency around mining company details on their corporate income taxes and gross revenues and profits regarding Yukon mines.

Economic Diversification

YCS recognizes this is a mineral development strategy, but consideration should be given to diversifying the Yukon's economy away from mineral development, or attempting to make it more resilient to mining boom-bust cycles.

This can take many forms, but a good example is training opportunities. If individuals are trained to repair bulldozers on a mine site, they have the same skillset required to repair bulldozers on a housing construction site. Remote minesites could use renewable energy options (solar and wind) as part of their energy use infrastructure. This could then be passed onto local communities at the conclusion of the mining project to permit the community to become an energy generator.

Use mineral development as a leverage to provide opportunities for economic diversification away from mineral development.

Climate Change

Our Green Future, the Yukon's draft Climate Change, Energy and Green Economy blueprint currently calls for the mining industry to reduce its emissions intensity, uniquely, the mining industry is not required to actually reduce its greenhouse gas emissions. However, the MDS can promote actions that will result in net climate benefits. YCS proffers the following suggestions:

Remote mine sites should be required to use renewable energy options (solar and wind) as part of their energy use infrastructure. This infrastructure should then be passed onto local communities at the conclusion of the mining project to provide a renewable energy legacy to the community.

The MDS, through the revised QMA, should require the adoption of low or, preferably, zero emission technology in mines.

Future Generations Fund

Consideration should be given to a future generation and territorial economic diversification fund financed through the extraction of non-renewables minerals. This would be similar in concept to the Norwegian Oil Fund, or more accurately the Norwegian Government Pension Fund Global.



The fund was set up to shield the economy from ups and downs in oil revenue. It also serves as a financial reserve and as a long-term savings plan so that both current and future generations get to benefit from our oil wealth. - <https://www.nbim.no/en/>.

In a Yukon context it would involve financing a fund through royalties and taxation of mineral extraction endeavours, and then using a portion of revenues from the fund in the future. If only a portion of the Future Generations Fund is used, remaining monies in the fund should be dedicated to revenue-generating investments.

Increase Mining Fees and Payments

It currently costs ten dollars to stake a claim in the Yukon. It would appear this amount has not changed in decades. Ditto the cost for metal claim post tags (two dollars). Increasing these amounts tenfold would not prove an undue hardship for miners yet could provide much needed income to the Yukon Government. The same could be said of the annual payments done in lieu of work. They do not appear to have been changed in decades either. It is worth mentioning they do not appear to have ever been adjusted for inflation either.

Mining fees and payments must be increased. These additional revenues should be directed into the above-mentioned Future Generations Fund.

Technological Innovation

There has been a recent surge in the use of new technology within the mining sector that can reduce the environmental impact of mining operations. Mining exploration that uses drones and low impact surface vehicles is vastly different from a ‘traditional’ operation where roads and trails are cut through the boreal forest to do the same activity.

However, the use of new technology can also provide tensions within the environmental community. Cyanide heap leaching for gold within the Yukon has become an accepted form of mineral extraction. Sulphuric acid heap leach to obtain copper is not acceptable, as it has not been proven to work safely in a northern environment.

The YMDS must encourage technological innovation, as it can provide environmental protection benefits. However, review and restraint will be required for some new procedures, processes, and products to ensure no environmental harm is done.

Mine Tailings Management

YCS has signed on to the report *Safety First - Guidelines for Responsible Mine Tailings Management* (June 2020). It is available at www.earthworks.org/safety-first or www.miningwatch.ca/safety-first.



YCS agrees with the authors that “Current industry standards, including the draft of the Global Tailings Standard released in 2019, do not go far enough to adequately protect communities and ecosystems from failures. The design, construction, operation and closure of tailings facilities require significant changes to protect people and the environment.”

The report has sixteen guidelines which YCS believes should be incorporated into the Yukon Mineral Development Strategy when it comes to addressing the issue of Mine Tailings Management. These sixteen guidelines are:

1. Make safety the guiding principle (not cost) in design, construction, operation, and closure, with zero tolerance for human fatalities;
2. Ban new mine tailings facilities immediately upstream from inhabited areas;
3. Ban upstream dams at new mines, and safely close existing upstream facilities;
4. Any potential loss of life is an extreme event and design must respond accordingly;
5. Mandate the use of Best Available Technologies to avoid catastrophic failures, including the use of filtered tailings and the elimination of overlying water;
6. Implement rigorous controls for safety, including conservative factors of safety, strict thresholds for annual probability of failure, and safer embankment slopes;
7. Ensure a detailed evaluation of the dam foundation and of the tailings properties;
8. Appropriate monitoring systems must be in place to identify, disclose, and mitigate risks;
9. Ensure the independence of reviewers to promote safety, including Independent Tailings Review Boards;
10. Ensure zero failure after mine closure, even under extreme meteorological and seismic events;
11. Consent of affected communities, including the rights to self-determination and free, prior and informed consent for Indigenous Peoples;
12. Grievance procedures and whistleblowers protection;
13. Prepare for the worst: ensure effective emergency preparedness and response plans in case of catastrophic failures;
14. Transparency: information regarding mine safety must be made publicly available;
15. Address financial risks, including securities for site closure and proper insurances for accidental spills;
16. Accountability must primarily rest with the operator’s Board of Directors.

While the best mine tailings facility is the one that is never built, YCS recognizes that should these pieces of infrastructure be required in the Yukon they must follow the sixteen guidelines as defined in the report *Safety First - Guidelines for Responsible Mine Tailings Management*.

Cost/Benefit Analysis of All Future Projects

Consideration should be given for the Yukon Government to perform detailed financial cost/benefit analyses of all proposed mines in the Yukon. This should include worst case



scenarios when the taxpayer's have to step in to assume closure and reclamation costs. This would help in determining whether social license is available for projects.

The Yukon Government should do a detailed financial cost/benefit analysis of all proposed mines in the Yukon prior to deciding on approving or denying a licence.

Reclamation versus Restoration

At the conclusion of mining projects there is an expectation of reclamation of the project site, not restoration of the land to something approaching what was in place prior to the project development. The Yukon currently does not require restoration of the natural environment. Currently the standard is to reclaim to the point that ongoing pollution is unlikely and where, hopefully, natural processes will over time restore a natural environment. It is time to do more than passive reclamation, both in placer and hard-rock mining operations.

Mineral extraction projects must, at their conclusion, have restoration (as opposed to reclamation) plans to ensure the project site is restored to as close as possible to prior development ecosystems.

Transparency in Government Funded Infrastructure

It is often unclear to the general public, those concerned over the impacts of mining (such as groups like the Yukon Conservation Society), and even the mining industry what is being spent on mining related infrastructure. This can include both direct and indirect expenditures.

Detailed reporting of such projects (from the Yukon Resource Gateway Project initiatives, to the Mayo-McQuesten Transmission Project, to the Federal government flow-through share financial tool) would provide transparency on fiscal support being provided to the mining industry.

An annual report outlining tax dollars being spent on mining related infrastructure (whether fiscal or physical) would provide transparency about the sector.

Transparency in Mine Site Reporting

Currently mining inspection reports are available to the public, but only in paper format. These reports should be put online in a format that is project specific. A good example to follow would be the Yukon Water Board WATERLINE website, with water licence documents and the associated reports available. The Yukon Government should do something similar. Quartz Mining License's and related documents are available online, and therefore so should be mining inspection reports.



All mining inspection reports should be made easily accessible to public scrutiny by being placed online.

Should you have any questions, please contact the undersigned.

Yours truly,

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