

**Review of the Proposed Prosperity Mine
Socio-Economic Assessment, Volume 6**

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for

Mining Watch Canada

May 15, 2009

Executive Summary

The author has undertaken a conformance review of Volume Six, the Socio-Economic Impact Assessment (SEIA) at the request of MiningWatch Canada.

This is an Executive Summary of that report.

How the Conformance Review is structured:

This conformance review of the SEIA (with the exception of Navigable Waters, which will not be reviewed) is organized into five sections. The five sections are:

Section I. A discussion of appropriate Guiding Principles and the extent to which the SEIA meets the requirements of these principles.

Section II- The Baseline Analysis An Analysis of the Baseline work in each Section of the SEIA comparing its offerings with the requirements in the EIS Guidelines, and making suggestions for further work. This analysis is organized with key concerns at the beginning, followed by a detailed paragraph by paragraph critique.

Section III- The Effects Analysis. An Analysis of the Effects work in each Section of the SEIA comparing its offerings with the requirements in the EIS Guidelines, and making suggestions for further work. This analysis is organized with key concerns at the beginning, followed by a detailed paragraph by paragraph critique.

Section IV- The Human Health and Ecological Risk Assessment- a critique of methods and key concerns with reference to the Guiding Principles

Section V- Comments on Monitoring and Follow-up: A critique of Follow-up and Monitoring provisions with reference to the Guidelines.

Conclusions of the Volume Six Conformance Review:

After concluding the conformance review, it is our opinion that, in the SEIA, the Proponent has

- * Not succeeded in providing adequate information and analysis to enable the Panel to evaluate the economic, social or health issues that will result from the environmental effects of the project
- * Has not used the Traditional Knowledge of the most affected First Nations in determining environmental effects;
- * Has not taken into account the relations and interactions among the various components of the effected ecosystems and meeting the needs of the population;
- * Has not analysed the capacity of affected renewable resources to meet the needs of the present and future generations and has therefore not met the Principle of Sustainable Development
- * Has not taken a precautionary approach to human health and community issues, and
- * Has made a number of unidentified assumptions and come to unwarranted conclusions
- * Has ignored CEAA requirements in regard to appropriate follow-up and monitoring of potential project effects.

Key concerns in the SEIA Conformance Review:

The SEIA is very difficult to interpret. Information is presented in a manner that forces artificial categories on matters that are closely related to one another. It invites serious omissions, duplication of some information and makes application of the over-arching principles very difficult.

For example, the Local Study Area (LSA) is varied dramatically from section to section, and even within sections. In some places it is the “Project Footprint”, in others it includes a territory including Williams Lake and 11 rural communities; for the First Nations cultural analysis, it is the Tsilhqot’in traditional territory; for others it is two Electoral Districts. This makes the information non-comparable from each category, and leaves the EIS subject to suspicion that the LSA boundaries have been chosen to suit the interests of the Proponent. There is little doubt even from the information in the SEIA that the impacts of the mine will seriously affect the ability of the Tsilhqot’in or the Secwepemc to meet their needs in the future. The effects on the Tsilhqot’in have been minimized in the SEIA through the use of variable LSA boundaries.

For example, most of the information for the Human Health and Ecological Risk Assessment (HHERA) is derived from data that may (or may not) be located in other Volumes and other sections of Volume 6. Unfortunately, this creates a very confusing situation for the Panel, as many of the references are only to entire Sections in other Volumes, which often many pages in number. Frequently the references are to Tables and paragraphs that do not appear to exist. Further, there appears to be little correlation with the Risk Analysis in the other volumes and the Risk Analysis tables in this Section that purport to rely on them. The “Risk Analysis” in other volumes (Wildlife, Aquatic, Soils, etc) does not use risk equations to establish risk, and relies on the judgement of the consultants who have written the reports. There are some real problems in their degree of reliance on the capacity of the Proponent to meet commitments 44-80 years in the future.

We recommend that the entire SEIA be re-written and re-organized to address these problems.

The EIA is deficient in its failure to examine the socio-economic and health implications of mine closure and post-closure.

In the Economic Issues section, “post-closure” is shown as “not significant” - although it is at that time that the RSA will be trying to cope with job loss, multiplier loss and long-term care and maintenance of the mine site. Table 2-2 does not have “loss of the mine” as a category. In the Social Issues section, the only reference to closure is the following: *“The relatively sharp increase in population at start-up and the decline as the mine winds down may create stress as there is relatively high rate of change”.* (3.3.1.4) In the Health and Community Services section, there is the following: 4.1.2 *“The greatest effects are expected to occur during the Project construction and operations when employment levels are at their peak....the closure and post-closure phases will involve very few workers therefore is unlikely that the demand for services will be substantially different from base case conditions.”*

We recommend that a proper “mining for closure” analysis of impacts be undertaken.

There is no cost-benefit analysis of the mine’s effects.

A solid cost-benefit analysis of the mine would include, not only those benefits that the Proponent names in the SEIA, but an analysis of the lost opportunity costs to resource users and small businesses, the loss of country foods, costs to government of increased road maintenance, as well as the cost of incentives and subsidies such as the provision of water for the project at no cost, the granting of the entire Fish Creek watershed, including Fish Lake, to the mine for the cost of the fisheries compensation measures, and the various tax incentives that the industry enjoys. There should be an analysis of the costs to the public of providing increased social services, health care programs and of dealing with increased violence. Since this will be greatest during the construction period, what provision has been made to ensure these services (and the financing for them) are in place at the time they are needed? What happens to the increased services in the event of closure?

We recommend that a multiple accounts analysis be undertaken that shows the possible benefits and costs for comparable study areas and (where at all possible) in currency, so that a proper cost-benefit analysis can be undertaken for the project.

The Economic Analysis provides a simplified version of the population that will be affected by the mine, and does not examine if the project will contribute to equity and justice for affected peoples over the long-term.

Mining projects are notorious for the creation of an “Intrusive Rentier” syndrome in the communities and regions where they are located. This term is used by Polèse & Shearmur (2006)¹ to describe an observed effect in regions dominated by a small number of highly capitalized (and high wage) employers.

We recommend that the Proponent add the following to the SEIA:

- A gender analysis of the mine’s likely impacts, as proxy for vulnerable populations (other than First Nations)
- Analysis of the potential negative impacts of heightened income disparity in the LSA and RSA
- Analysis of the consequences of the loss of mine incomes and contracts in the LSA and RSA post closure, or in the event of an economically induced shut-down
- Analysis of what happens when local businesses shift their focus to supplying the mine from their current focuses: what will happen to their current customers? Where will these businesses get credit to shift their focus? What happens to them when the construction period ends? When the mine closes either during a bust or at the end of its life? What will happen when their workers go to work at the mine?

There are serious questions to be raised about the long-term viability of the mine, which may affect its ability to deliver the benefits promised over the long-term, and its ability to deliver on mitigation commitments.

This is a low grade mine. Mineral resources are gold at 0.41 g/t and copper at 0.24%; mineral reserves only differ slightly with gold at 0.43 g/t and copper at 0.22%. The gold is dispersed throughout the mine and cannot be retrieved without mining the copper, and there are smelter penalties for antimony, arsenic and mercury in the ore. In addition, the Net Profit Return has been calculated on a “before tax

¹ Polèse, Mario and Richard Shearmur. 2003. *The Periphery in the Knowledge Economy: the Spatial Dynamics of the Canadian Economy and the Future of the Non-Metropolitan Regions in Quebec and the Atlantic Provinces*. The Canadian Institute for Research on Regional Development.

basis”, and a number of other costs are not included in the Feasibility study, including: costs for acquisition of rights-of-way; the cost of producing any environmental impact statement and obtaining environmental permits and approvals from local or national authorities; financing charges and interest during construction; currency exchange fluctuations after Sept 1, 2007; all costs associated with weather interruption of construction operations; construction reclamation costs.²

We recommend that the Panel request access to the full bankable feasibility study for the mine for review.

There are serious questions about the capacity of the region to cope with the impacts of the mine on the population.

The picture that emerges from data on the Chilcotin is of a region already in socio-cultural trouble, and unable to raise the resources it needs to deal with the social and economic issues it currently faces. This does not give confidence that it will have the resiliency to be able to cope with at least 4 years of serious disruption and dislocation that will be caused by the mine construction and development. The Proponent needs to identify the vulnerable populations (women, youth, First Nations and the services on which they depend). This also means doing an analysis of informal supports and of the social fabric in the communities that enable vulnerable people to survive. It is likely that the social fabric is much frayed.

It is pretty clear that, at least for the first few years, low income renters in the region will be faced with a vacancy rate of less than zero, escalating rents and over-crowding. Most of these will be single parent women and Aboriginal people, but the pressure will extend to low wage earners across the region. Eventually more accommodation will be built, and trailer parks hastily thrown up (with all the regulatory hassles that entails) but that will take years, and after 2012, when the mine starts to wind down, the owners of those units will once again face a dramatic drop in market value.

Throughout the SEIA, faith is placed in “*the efficiencies of the market*” to adjust. The proposed mitigation measures are: pressure on local communities to anticipate and find housing; landlords will be told that more potential tenants are coming; and a housing placement service will be set up for new employees.

“Just as a natural ecosystem system can be damaged or destroyed, social systems can also be damaged or destroyed if key components are undermined or removed. It is very important to know, thorough research, where the thresholds lie and what the consequences of crossing them might be ...In cases where the impacts are as yet uncertain or unknown, the precautionary principle must apply....It may be possible for a community to survive, redefine itself and recover if a threshold is crossed. However, if, as in the case of the Innu of Labrador, thresholds are crossed again and again, recovery may no longer be possible.”³

The Proponent has ignored the Guidelines direction to use the WHO Determinants of Health in the Assessment.

² Taseko Feasibility study, page 150

³ http://www.mveirb.nt.ca/upload/ref_library/SEIA_paper.pdf, page 11.

Although there is a cursory mention of the many organizations that make up “*the community and public health services*” (or of the “*social services*”) for residents in the RSA and LSA, there is no analysis whatsoever of their fragility and strengths, who they serve and don’t serve, where their funding and staff come from, nor of their capacity to adapt. The discussion of Health and Community Impacts is restricted to the medical system, and a list of agencies.

The Proponent has only done a Human Health Risk Assessment based on chemical toxicity of country foods. There is no analysis of “emotional, social, cultural, and economic aspects”. Nothing is said about social services, or the infrastructure – the “social fabric” - that supports family life. There is nothing about the capacity and resiliency of day care and youth services, family violence programs, women’s services, and drug and alcohol programs, or mental health programs.

There is no analysis in the document of how the baseline conditions for women and men differ, nor of how the mine may affect them differently. Gender analysis has become a key part of most recent environmental assessments for resource extraction projects. The need for specific gender analysis can be seen in the great discrepancy between the incomes and earnings of women and men in the Cariboo Region in the 2006 census. However, in none of the Sections of the EIS is there any analysis of the base line conditions for women, of possible cumulative effects on gender balance and relations, or of the possible mitigation measures to address these effects.

We recommend that a Health Risk Assessment be undertaken based on the WHO Determinants of Health.

The SEIA does not respect the past and current impacts of the Project on Aboriginal peoples.

The SEIA is almost entirely about the non-Aboriginal people, their businesses, their recreation and their activities. “First Nations cultural heritage” is addressed in a five page section of the over five hundred pages that make up Volume Six and its Appendices. With the exception of the cultural heritage paragraphs, the SEIA is devoid of input from Aboriginal people and devoid of their understanding of the region where the mine is located.

There will be numerous impacts on the Tsilhqot’in peoples and the Secwepemc nations. These First Nations have been opposed to the mine development from its inception, because they believe that it will irreversibly damage their culture, their economy and their way of life.

The proponent argues that he has engaged in “consultation” with First Nations about the Project, and lists every phone call and meeting in laborious detail in Appendix 8-2-A. It must be remembered that this analysis and the list are from the point of view of the proponent, who had the desire, resources and staff to endlessly pursue the affected First Nations. On the other side of these phone calls and meetings, were First Nations with few available resources; who did not want the mine under any conditions; that were trapped into processes they did not author; and who would have preferred to get on with their other responsibilities - like dealing with the serious socio-economic issues in their communities.

The Human Health Ecological Risk Assessment (HHERA) in Volume 6 does not meet the Panel’s needs.

The HHERA does not address the WHO Social Determinants of Health, but only a baseline study of potential toxicity in country foods.

There was no Aboriginal consultation available to the Proponent in developing the HHERA, and as a result key information is missing: the amount of wild medicines, plants, berries, meat and fish consumed by First Nations, for example.

The Risk Analysis model is fraught with unidentified assumptions. Risk assessments of toxins are mathematical exercises, based on well over one hundred different assumptions. A change in any one of these assumptions can have a dramatic effect on the risk estimate. The modelling is not “ground-truthed” with testing of human or animal tissue to see if the modelling makes sense in the real world. Often key information needed for an adequate assessment of effects is missing. In the HHERA, for example, there has been no collection of chemical information in wildlife tissue such as moose, muskrat and willow ptarmigan, insufficient information of berry metal concentrations; and the *“consumption patterns of traditional foods in the area is not known”* (6.3.1.)

The timing of this mine development is inappropriate for the region.

Assuming that the mine is allowed to proceed, there are serious questions about the timing of the construction period. The proponent anticipates that the mine construction period will last 25 months and will take place from 2010-2012. Unfortunately, this period coincides with the peak harvest of logs damaged by the Mountain Pine Beetle (MPB) – which is expected to last until 2013 (5.2.2.) It will also overlap with the expansion project at Gibraltar Mine and with the harvest of timber from the transmission line right of way and the mine site. It would be an appropriate mitigation measure to delay the construction period until after the Gibraltar expansion is complete and the MPB harvest has wound down, so that there will be more available local labour and less traffic on the highways. This would also coincide with the closure of Mt. Polley Mine in 2013.

The Follow-up and Monitoring Program is almost non-existent

The Follow-up and Monitoring Program does not meet the requirements in the Guidelines, or in the CEEA Operational Policy Statement.

The only Follow-up programs mentioned in Volume 6 are:

- 1) Other Resources Users, for compliance for commitments made (outside the EA process) (Table 5-19)
- 2) Transportation: implementation of the traffic management strategy (Table 3-17)
- 3) Community Services: *“Taseko will apprise the LSA communities as needed of major changes in its workforce level, or other events that may trigger a community response, hence community’s need to anticipate and plan a response.”* (Table 3-17)
- 4) First Nations cultural and heritage – *“TML to develop and implement a viable mechanism for the monitoring of impacts and the implementation of follow-up procedures.”* (Table 3-17)

Given all the uncertainties in the SEIA, the significance of this project to the Tsilhqot’in and Secwepemc peoples, and its potential to seriously damage the social and economic fabric of the area, a careful plan to validate all the predictions and assumptions in the baseline and effects assessments at regular intervals throughout the project must be developed at the Environmental Assessment stage. Monitoring for the Follow-up program must be a participatory, inclusive and transparent process that involves the First Nations, and vulnerable populations in all the local communities.