

Telkwa Coal Mine Plan – Key Issues



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These comments are based on a preliminary review of the Telkwa Coal Mine application by Patrick Littlejohn, PhD, P.Eng., a mining professional with more than ten years of experience in mine water treatment and management in BC. He will conduct a more fulsome review and contribute written comments to the Northwest Institute as part of the Environmental Assessment process.

- 1. Lack of appropriate water treatment:** The project proposes very limited water treatment to remove suspended solids (i.e. dirt/sand particulate) and does not propose treatment of any dissolved solids in water. This does not align with BC policy on use of Best Available Technology and use of Initial Dilution Zones. Basically this policy says that if a mine expects to have contaminated water, the mine owner needs to use Best Available Technology to treat it before considering potential impacts to the environment. There is reasonable potential for water contamination from selenium and acid rock drainage. These are fairly common issues in the mining sector and there is lots of precedent in BC and elsewhere for treatment of mine water for these kinds of contamination. The project discusses active water treatment as a contingency measure but this should be part of Plan A.
- 2. Relaxation of water quality standards:** BC has generic water quality guidelines to protect the environment. The project proposes to use relaxed water quality standards for selenium that are 4 to 17 times higher than BC's standard guidance. Project specific water quality guidelines can be developed if there is a firm scientific basis for why the generic standard is inappropriate for a specific site and BC has detailed policy guidance on this process. Based on my preliminary review, the Tenas project does not appear to follow the policy for development of a Science Based Environmental Benchmark and so their basis for relaxing water quality guidelines for the project is questionable.
- 3. Optimistic design:** Overall, the mine plan proposal paints an optimistic picture in terms of managing water and preventing contamination. Even the best mine plan can have problems – maybe there is more or less rain than anticipated, maybe economic conditions change and the mine goes on temporary closure, maybe source control doesn't work well enough to prevent contamination, maybe there is more contamination released from rock than anticipated. The project application describes a mine plan that could work if everything goes perfectly. However, mines never go exactly as planned and so best practice is to have robust designs that incorporate redundancy to mitigate risks and prevent impacts.

In short:

- The mine plan does not follow BC policy with respect to water treatment.
- The mine plan proposes to use BC water quality standards that are significantly higher than BC's generic limits.
- The project design does not seem robust enough to proactively manage risk to the environment.