Thompson Creek Closure Plan

Comment: Alison Candela, Lake Kathlyn Protection Society

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Comment on draft closure plan, Thompson Creek. Davidson Property.

Thank you for the opportunity to comment on the closure plan. Most Lake Kathlyn residents get their drinking water and domestic water directly from the lake. The quality of that water is critical to their wellbeing.

My comments.

The following should be part of the closure plan:

- Regular testing into perpetuity, at the sites designated in the closure plan, and as well in Club Creek, and in Lake Kathlyn, where Club Creek enters the lake. Qualified water quality or hydrological specialists should deem where it would be most efficacious to test in these water bodies.
- 2. Monthly monitoring at the adit and dump sites, to ensure that the dump is not saturated, and suddenly releasing previously trapped arsenic and other toxins into the environment. Immediate emergency response if there is any change in the hydrological or geological stability of the dump or mountain side, that could result in changed flows down the mountain into domestic water systems.

- 3. Annual surveys and hydrological testing to ensure that ground and surface water pathways have not changed and directed contaminated water into Club Creek, Glacier Gulch, Upper Kathlyn Creek, or Lake Kathlyn. Immediate follow-up should be guaranteed to correct any such contamination.
- 4. That Jim Hutter, or whoever is site manager, keep a key to the culvert housing the Club Creek diversion works, to ensure that the flow into Lake Kathlyn through Club Creek can be cut off if there is a spike in arsenic, molybdenum, cadmium or other toxic substances coming into Club Creek from the mine works, holes, or dumps, through Glacier Gulch or other tributaries, surface or underground, such that any risk is posed to people, animals, or plants, from regular domestic use of the water.
- 5. That in such an event, where there are levels of concern of metals or other substances, all water users in the watershed should be informed by public media and telephone, so that the risk to downstream users is reduced. That World Health Organizations standards for allowable metals or substances of concern be used to act as triggers, except when BC drinking water standards are more stringent than those of the WHO. As the ability to detect levels of toxic substances such as arsenic, cadmium, antimony and molybdenum in water become more refined, the most accurate tests should be used to determine whether water poses a risk to people.
- 6. That warning signs be posted at any site where consumption of the water is a risk to animals or humans, including at the site where any drainage comes out of the adit or the dump, at Glacier Gulch, and any other locations where testing indicates there are drinking water concerns.

- 7. That drainage from the adit, or rubble piles, or any other mine works be gathered, stored and safely disposed of outside of the Lake Kathlyn watershed. This would be until the bulkhead response, referred to in the closure plan, is completed. This is assuming that the Golder bulkhead response is deemed the best response to keeping contaminants out of the watershed by specialists in mine drainage. If it is not deemed the most efficacious response, best practices should prevail.
- 8. If this is not immediately possible, that any drainage be directed away from the Lake Kathlyn watershed, and not into Glacier Gulch Creek, or any tributary which connects with Club Creek, Upper Kathlyn, Club, or any tributary that flows toward Lake Kathlyn, and then into the drinking water of Lake Kathlyn residents.
- 9. That a bond be posted to assure costs of maintaining the integrity of the drinking water in the watershed will be covered, whatever the future of Thompson Creek Metals. That the amount of the bond be set on the recommendation of the ministry of environment and mines officials, or that they engage specialists in this area, using their knowledge of costs of such maintenance in similar mine sites.
- 10. That into perpetuity best practices be used in determining what should be done to keep the adit discharge, contamination from disturbed or excavated soils, and all mine contamination out of the Lake Kathlyn watershed, and as new technologies or understandings develop, these be applied, and old less efficient and safe responses to the problem not be "grandfathered".
- 11. Should long term contamination of the water occur, Thompson Creek should be responsible for installation,

ongoing charging and maintenance of appropriate and adequate domestic water systems, such as a cisterns, for all downstream users, present and future.

Thank you for soliciting a response for draft closure plan.

Alison Candela