

1) 2012 Water Sampling

All the results (for the factors analysed) of the 2012 sampling program showed a clean, healthy, river system. I have a copy of the final report here.

The only element that we should be diligent about is Phosphorus. To keep phosphorus at low levels all cottagers need to prevent surface phosphorus from reaching the river. Excessive phosphorus increases plant and algal growth which can lead to changes in the numbers and types of plants and animals, ultimately resulting in toxic cyanobacterial algae blooms. These algae are toxic to fish, have bad odours and can taint drinking water. They have resulted in harm to wildlife and domestic animals & prevent recreational use of the water.

What can we do?

- 1) Leave uncut vegetation at water's edge and plant native plants and shrubs
- 2) Keep shorelines in their natural state
- 3) Do not use fertilizers near the water
- 4) Use phosphate FREE soaps and detergents
- 5) Do not use soaps or shampoo in the river

2) Possible TANCO Effect on Bird River

TANCO has some remediation work that is required to keep their mine safe to operate (some of you may have attended the open house earlier this summer). To do this work they need to drain part of Bernic Lake and dike it off to make the repairs. They also have to divert their tailings discharge from its current location (into Bernic Lake), into wetlands adjacent to the Bird River. These activities may potentially impact Bird River water quality with the following 2 areas of concern;

1. Total suspended solids (TSS)
2. Phosphorus

In 2011 TANCO had 4 exceedances of the TSS above recommended guidelines at their West discharge. Since then they have aerated the tailings and had only 1 exceedance so far this year. However, as they pump the west basin lower and lower it will stir up the bottom sediments, increasing the amount of solids in the flow. Currently the lake acts as a settling basin which prevents few solids from overflowing to the Bird River. In addition the solids in the bottom of the lake likely contain chemicals such as phosphorus that co-precipitated onto the bottom with the solids. It is expected that the discharge into wetlands will act as a filter before this material goes into the Bird River but timing and flows are important.

TANCO has stated that water quality and quantity into the receiving river will be monitored but we would like to have the results available to the COA on a timely basis. We are also proposing that TANCO support a sampling program next spring that would confirm the integrity/quality of the Bird River after the dewatering. We are in discussions with ALS labs and TANCO about this.

3) Levels of Coliform Bacteria

I mentioned last year that previous sampling had detected some elevated levels of fecal coliform bacteria. No analysis of this factor was done in 2012. Manitoba Conservation has

stated that all drinking water drawn from the river must be treated and tested by home/cottage owners using it for this purpose. There is still a small concern of the river water being healthy for recreational purposes such as swimming & boating, however Conservation is reluctant to support this kind of sampling due to the difficulty of interpreting results due to natural influences on the measurements..eg a beaver lodge, nesting geese etc.

4) Self-Assessment of Recreational Areas

I have with me a self-assessment questionnaire that each property owner can use to assess possible risks to water quality. It is basically a checklist that helps you evaluate what impact you may be having on the water quality. If after reviewing your property you feel that you need more information or resources to address an issue the COA will try and direct you to the appropriate resources.

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