



The Story of Yellow Quill's Drinking Water

In 1996, Environment Canada issued a State of the Environment Report. In this report, it was found that 20-40% of rural wells may be affected by fecal coliform bacteria and nitrate contamination, among other indicators of poor water quality. When a community is found to have unsafe drinking water, that community is usually issued a boil water advisory until the problem has been fixed. The Yellow Quill First Nation in Saskatchewan has been on a boil water advisory for nine years, since 1995.

In July 1999, a year before the Walkerton water tragedy, a young Environmental Health Officer found out about the continuous boil water advisory at Yellow Quill. When she tried to find out why it had not yet been lifted, she found that not only did the community get its water from a small creek that only flowed for 1-3 weeks each spring, but that the upstream town of Kelvington would empty its sewage lagoon water into the same creek during the short time that it flowed. The Safe Drinking Water Foundation (SDWF) was contacted and began to look into the case.

The SDWF found that Indian and Northern Affairs Canada (INAC) had hired Sask Water to help native communities with their water and file reports. The Sask Water report for Yellow Quill did not mention the poor water quality at all. The SDWF proceeded to make a more detailed report about all of the problems, including the addition of a carcinogenic chemical to the water at the treatment plant. SDWF made many recommendations to improve the water quality and volunteered to attend meetings between INAC, Yellow Quill, and others but INAC only stalled, year after year.

Even after the tragedies at Walkerton and North Battleford, which were dealt with immediately, no one was trying to fix the water at Yellow Quill. A Health Canada expert that was sent to Yellow Quill after these two outbreaks did try to help, but Health Canada's politicians in Ottawa stopped his involvement. The people at SDWF began to address the issue along with the members of the Yellow Quill community without federal assistance.

They began with a list of about 60 criteria from the Canadian Water Quality guidelines that our water has to pass in order to be safe. However, Health Canada only follows a few of these guidelines when testing water in native



communities, including testing for coliform and E. coli bacteria, chlorine, and nitrates. Such limited testing cannot accurately determine the safety of the water. Why is it that the water in Aboriginal and rural communities is not held to the same standards as in the rest of Canada? Viruses and protozoan parasites are increasingly presenting more concerns in drinking water as they can go undetected in water that is tested for coliform bacteria. This is because viruses are smaller than bacteria and protozoan parasites can withstand higher levels of chlorine. Health Canada has increased coliform testing on reserves from once a month to once a week. Will this help? No, because looking more often for just one parameter doesn't monitor the other 50+ contaminants in the guidelines. In order to help barriers must be in place to ensure that contaminants cannot survive the treatment process.

The protozoan parasite *Cryptosporidium* infected 400,000 people in Milwaukee when it got into the drinking water in 1993. This outbreak was a huge wake-up call for cities around the world, yet *Cryptosporidium* is still not on the Canadian Water Quality guidelines. Despite this, the operators of Canada's major water treatment plants test for guidelines closer to the U.S. ones, which are more stringent than Canada's. Except for in Aboriginal and rural communities. So why is the federal government spending money on lawyers so that they cannot be blamed for the poor water quality on reserves instead of spending that money on solving the problem? Why is the problem being hidden rather than solved?

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The people at SDWF and Yellow Quill continued to try to solve their problem on their own. An engineering consultant was hired to find new sources of water for the community, looking as far away as 100km. Ultimately a source was found deep under the ground of the reserve. This water was still of poor quality but could be treated to become excellent drinking water. Yellow Quill's Water Project Team did not want a lot of chemicals to be used, so ultimately a treatment process was developed that had never been used in Canada before.

Different processes have been tested at new well on Yellow Quill since July 2002. A combination of processes that do not use chemicals, yet make the



water safe, have been developed, with help from scientists in the U.S. and Europe. The new treatment plant will be the first totally biological water treatment plant in Canada. This has also turned out to be the first time that INAC has supported such a large project.

“Yellow Quill will have gone from having Canada’s poorest drinking water to having one of its best. ... By paving the way for new treatment processes it is hoped that other native communities with extremely poor water quality ground water will also soon be able to produce high quality drinking water on reserve.”

Sources: Dr. Hans Peterson, “What does it take to improve First Nations drinking water in Canada? Another Walkerton?”, *Aboriginal Times*, Vol. 8, Issue 5 July/Aug. 2004. “Yellow Quill’s Drinking Water”, www.safewater.org