

## The drinking water saga continues

Dr. Hans Peterson

**T**he federal and Ontario governments, with major political posturing, went into the deep end of drinking water issues in Kashechewan as visions of Walkerton re-emerged as E. coli had invaded yet another First Nations community in Canada.

The Ontario government is earning a reputation for blasting the federal government and evacuating Kashechewan's people fit that bill (especially when the provincial government knew that they could bill back costs to the federal government).

Feeling guilty, or shamed into taking some sort of action on the Kashechewan First Nation, the federal government, with little to lose from making lofty promises, did so in grand style by stating that 50 new houses will be built per year for the next decade in Kashechewan.

Kashechewan's Chief was happy as he envisioned the delivery of new homes to his people, and rightly so. For those not familiar with First Nation housing needs, the overcrowding of living conditions on reserve is deplorable.

First Nations chiefs continue to fight for descent accommodations for their people, to alleviate the situation of having 10 to 20 people living in one dwelling.

But not addressing safe drinking water delivery on reserves while building more houses is confusing.

Building more houses on reserve, without a concrete plan to address unsafe drinking water seems, unfortunately, like something that a beaurcracy would do, or that a short-sighted politician might do in order to win brownie points with the electorate.

So I have to question the federal governments action of putting in the housing, complete with water and sewer pipes connected to the dwelling, which I suspect may deliver questionable water quality to the new inhabitants?

So, the federal government, with all of its good intentions, is to put it bluntly - misguided. Its approach, as usual, is to get a consultant in, add large quantities of chlorine and declare the water safe to drink. Chlorine is a proven recipe for killing coliforms, which are the bacteria indicator that Health Canada uses to determine whether the water is safe to drink or not.

But, Health Canada has promoted this fix for decades, using hundreds of millions of dollars. Yet, Health Canada scientists know full well that only one third of waterborne disease outbreaks test positive for coliforms, very bad odds for protecting public health.

On the bright side, the Canadian Drinking Water Quality Guidelines is going through major revisions right now and will become more stringent in years to come as Canada tries to align itself with higher standards set down by the World Health Organization, the United States and Europe.

Given the present state of water quality in rural areas, how many surface water treatment plants can meet turbidity guidelines without getting excessive aluminium residuals in the finished water?

How many surface water treatment plants can maintain chlorine residuals in the distribution system while controlling Trihalomethanes?

How many groundwater treatment plants with ammonium in the water can offer primary disinfection as required by Health Canada?

None of the above is related to coliforms, but are crucial in the production of safe drinking water.

There are more than 50 additional federal jurisdictional guidelines that treatment plants are supposed to meet (including treatment plants located in First Nation communities), and what will happen when Canada tries to live up to international standards already implemented in Europe and the U.S.?

I estimate that a majority of water treatment plants on reserve will fail to meet one or several of the above criteria that are required to produce safe drinking water.

Granted, Health Canada will beg to differ, as it bends to the will of its political masters, and clings to the now scientifically discredited concept of "coliform school". This is despite the fact that virtually every scientific study conducted in the past 20 years has determined coliforms to be poor indicators of other waterborne disease causing microbes.

While the "coliform school" notion is accepted for politically expedient reasons today, it won't be in the future. It will face a death by a thousand cuts because the science behind it is so unsound.

Indeed, a world-renown expert on water treatment problems, Dr. Colin Fricker of the U.K., says that the regulatory reliance on coliforms means nothing in terms of determining if the water is safe to drink or not.

I guess, to the federal government, perception is reality. I assume that we will continue to live this dream until people start to realize that by ignoring the problems, we deny ourselves access to solutions. So until then, expect the theory of the "coliform school" to reign supreme. **Δ**



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