

Letter Written by the Executive Director of the Safe Drinking Water Foundation, Dr. Hans Peterson, to the editor of the Canadian Medical Journal Association

In the April 7, 2008 issue, the Canadian Medical Association Journal (CMAJ) takes a closer look at Canada's drinking water issues; this is commendable. It is correctly stated that these issues are a Rural versus an Urban issue. Canadian cities have some of the best quality raw water sources in the world tapping into only lightly polluted very large rivers and lakes. The cities also have both the financial and technical resources to treat these water sources to provide excellent quality drinking water. For example, similar to other cities, the water treatment processes for Calgary takes a few of hours to complete. A multitude of techniques are used to treat a *raw water supply* that is an order of magnitude cleaner than the average rural water supply based on dissolved organic carbon content (Calgary's raw water also excels in many other tests.). As with other cities, Calgary treats its water to both the Canadian Drinking Water Quality Guidelines and also to US Environmental Protection Agency Regulations. The federal or provincial guidelines and/or regulations are of little relevance to most cities. They treat the water to even higher standards. The cities are concerned about liability and the potential very high cost of illnesses associated with contaminated water.

Contrast this with rural Canada. The water supplies are typically very small and of poor quality. The water has drained mostly farmland with close contact with livestock and human waste. While the bacterium *E. coli* has made most media headlines, there are parasites, viruses and organic material that can also be quite difficult to remove from this raw water. Most large cities would have significant difficulties treating this type of water; rural communities only treat their raw water supplies using a few processes minutes long. This is the crux of the problem. Rural water treatment plants need better treatment than cities because of the poor quality raw water sources: yet, the opposite is true. Is there any wonder that most rural water treatment plants cannot meet current Canadian Drinking Water Quality Guidelines?

In many rural communities, the drinking water is only assessed against a small sub-set of the guidelines. Health Canada, for example, is heavily relying on 5 out of more than 50 health parameters in the guidelines to assess treated water quality on reserves. Four of these parameters (total coliforms, *E.coli*, and free and total chlorine) are also the basis for most boil water advisories. Solutions to boil water advisories typically result in adding greater levels of chlorine, which "fixes" all of these problems. No treatment plant necessary - you just need chlorine!! Indian and Northern Affairs Canada has done a commendable job on water treatment plant operator training. This, however, does not solve the problem when the treatment equipment can be likened to a tea strainer, yet what is really required, at the very minimum, is a coffee filter. There are two solutions to this problem. Pipe the water in from regional treatment plants, which sometimes makes financial sense, but microbial issues, such as Mycobacteria growth, must be considered. A simpler and universal solution: better water treatment systems for rural water users.

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The following articles that appeared in the Canadian Medical Association Journal prompted the preceding letter:

**Despite federal promises, First Nations' water problems persist**

Laura Eggertson

Can. Med. Assoc. J. 2008 178: 985

Notable excerpts from this article:

*"A year after the federal Conservative government promised to draft drinking water standards for First Nations communities, there is still no bill before the House of Commons — and boil-water advisories remain in place on more than 90 Canadian reserves".*

*"The promise of legislation to allow for regulation of water quality on Indian reserves has been made, but nothing has happened,"* says Harry Swain, who chaired the Expert Panel on Safe Drinking Water for First Nations.

*"There are 2 plausible explanations: (a) that this is not a high priority for a minority government, or (b) that it's far more difficult than they thought,"* says Swain. He called the second explanation *"the more charitable one."*

In his 2007 budget speech, Finance Minister Jim Flaherty said *"All Canadians deserve clean, safe drinking water"* and promised action. *"We will provide a tough regulatory regime and standards for drinking water on First Nations reserves,"* he told Parliament.

**Investigative report: 1766 boil-water advisories now in place across Canada**

Laura Eggertson

Can. Med. Assoc. J. 2008 178:1261

Notable excerpts from this article:

*"More than 1760 provincial boil-water advisories are currently in effect in communities and neighbourhoods across Canada, prompting calls from national and municipal advocacy groups for a federal and provincial strategy to ensure safe drinking water for all Canadians".*

*"An estimated 90 Canadians die annually from drinking contaminated water".*

*"Poor quality drinking water in Canada is often perceived as an issue primarily of concern to First Nations communities; as of Feb. 29, 2008, there were boil-water advisories in place in 93 First Nations (CMAJ 2008;178: 985). These are not included, however, in the 1766 advisories now in place elsewhere in Canada".*

*"Advisories are intended to be a precautionary measure in the public health tool kit, but given that some have been in place for at least 5 years, they are apparently being used as a band-aid substitute for treatment".*

*“Ontario and British Columbia have the most boil-water advisories. A spokesman for the Ontario Ministry of Health and Long-Term Care says that 679 boil-water advisories have been issued since 2006 that, as far as the Ministry knows, remained in effect as of Mar. 19, 2008. Spokesman Dave Jensen cautioned, however, that public health units in Ontario do not always report all their advisories to the Ministry, nor do they always report when an advisory has been lifted”.*

Although the various levels of government share jurisdiction over water, there are currently no national drinking water quality standards. Each province has its own standards and regulations.

The Public Health Agency of Canada reported some 571 cases of cryptosporidiosis and 4046 cases of giardiasis in 2005.

### **Safe water? Depends on where you live!**

Steve E. Hrudehy, DSc(Eng) P  
Can. Med. Assoc. J. 2008 178:975

With all of the above factors in mind:

### **The Safe Drinking Water Foundation has Hired a Policy Intern**

We, at the Safe Drinking Water Foundation, have hired a Policy Intern to keep abreast of the Federal Action Plan for FN Drinking water and we will be keeping everyone informed by posting updates in the Water News Section of our website ([www.safewater.org](http://www.safewater.org)).

### **Details of the Internship**

The Safe Drinking Water Foundation (SDWF) continues to develop its watchdog function, and is particularly concerned about the developments concerning the release of the regulatory framework for First Nations Drinking Water in Canada by the Federal Government. It is essential that this framework addresses the concerns and recommendations brought up by the Auditor General (2005), the Expert Panel on First Nations Drinking Water (2006), The Standing Senate Committee on Aboriginal Peoples (200?), SDWF, the Assembly of First Nations (AFN), various media reports and scientific publications, and numerous First Nations communities. Preliminary reviews suggest that these are the areas SDWF will likely focus on, but changes will be incorporated as new information comes to light.

That the framework is released in a timely manner.

The consultation obligations to First Nations by the Federal Government is respected

That a regulatory body, such as the First Nations Water Commission is established to ensure:

INAC provides adequate funding to construct and operate water treatment plants that consistently meet the Canadian Drinking Water Guidelines

The commission is responsible for licensing water and wastewater facilities, inspection, investigation, enforcement and policy advice

Accountability is ensured through the Commission having the power to investigate complaints arising from the conduct of any of the partners

That Aboriginal customary laws would be incorporated into the management of drinking water and source water

That the commission and legislation would be developed in a manner that moves towards, and continues to allow for increased self-government

There would be a First Nations Water Tribunal to oversee approvals, orders, and unresolved complaints from First Nations members and the federal government (p 30-41 Expert Panel volume II)

That Drinking water standards are established and enforced that are equal to, or more stringent than the Canadian Drinking Water Guidelines

**To keep informed of developments visit [www.safewater.org](http://www.safewater.org) regularly, there are over 40 Fact sheets written in easy to understand format on most aspects of drinking water quality.**