

# Report from the Safe Drinking Water Foundation's 1st International Conference

By Dr. Hans Peterson

I have attended many water conferences in Canada, the U.S. and around the world and have found that when it comes to dealing with water issues in most countries, politics frequently comes into the scientific mix. As an example, I was at a water conservation meeting in Las Vegas in the early 90s and watched as politicians squared off with scientists and agricultural groups as to who should be able to use the water and at what cost.

Unfortunately, when it comes to rural drinking water issues in Canada, science has taken a back seat and water conferences, seminars and meetings have been dominated by "safe science", a term which politicians really seem to like. It avoids identifying real problems that may require action and that would come with a price tag. Conferences organized and sponsored by government agencies or organizations relying heavily on government support have done little to quell the uneasiness I generally feel at these events.

In May 2000, one week before the Walkerton tragedy made headlines, the Canadian Water and Wastewater Association held a national meeting in Regina; it was sponsored by federal and provincial government departments. Health Canada wore especially thick rose-colored glasses patting the federal and provincial governments on the back for how well everybody was doing. I did question that position and warned them publicly that waterborne disease outbreaks in rural Canada were just around the corner. I was later interviewed by a number of media outlets and watched as government bureaucrats were eager to reply that I didn't know what I was talking about.

Less than one week later, Walkerton hit the news and I found myself on CBC's The National debating what went wrong. Those practicing "safe science", with money from federal and provincial government agencies, called Walkerton an "aberration" and everything was fine in rural Canada. Well, there have been thousands of boil water advisories across the country since then but government agencies still try to belittle the serious situation that most rural communities faced in 2000 and still face in 2004. Granted, more chlorine is added but much more is needed. And, simply calling boil water advisories cannot take the place of finding and implementing water treatment processes and practices that are capable of making the water safe.

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Pulling together a meeting with private funding, with no government support, was a huge risk for the Safe Drinking Water Foundation. However, getting people to tell the truth was a powerful incentive to all our volunteers who included scientists, engineers, medical doctors, water treatment plant operators and people from many other walks of life. We had selected some of the best people in their fields from around the world to speak to our gathering and they all donated their time to come to Saskatoon. It was gratifying that more than 220 people attended the conference - had government support been forthcoming for all those who wanted to attend, our count would have exceeded 700.

We heard speeches from Bruce Davidson (Concerned Citizens of

Walkerton), Dr. Paulette Tremblay (Six Nations First Nations, Ontario) and Dr. Derek Chitwood (Partners in Hope, China) detailing how people try to cope with waterborne diseases both in underdeveloped and developing country conditions.

There was a large line-up of scientists that were putting science into easy to understand terms. Dr. Colin Fricker from the United Kingdom is a water quality specialist trouble-shooting water treatment plants around the world - he was in charge of figuring out the Cryptosporidium outbreak in Sydney, Australia. Dr. Fricker started his presentation by asking the question: "If you have no coliforms or E. coli in your drinking water, what does it mean?" He then answered, "It

means that you have met regulatory requirements". He went on to ask, "Does it mean that you have produced safe drinking water?" and responded with "Absolutely not"! He expanded on what needs to happen before you can be assured that the water is safe. Few rural communities in Canada are presently following his advice. Dr. Fricker left no doubt among delegates when he clearly stated, "If you only take one thing from my presentation today, let it be that testing for guidelines does nothing to protect public health".

Dr. John Lawrence was the lone Canadian government scientist to address our meeting. His title was, "Biofilms - How microbial slime can change the quality of drinking water". Dr. Lawrence outlined challenges when bacterial nutrients

show up in the distribution system where they are present most of the time. This results in bacterial slime growing on the walls of pipelines. These slimes can harbor and allow the reproduction of a multitude of pathogenic organisms. People advocating the expansion of rural pipelines need to take bacterial slime into consideration and make such evaluations part of the cost of the pipeline.

Speaker after speaker outlined the problems but they were equally eager to highlight solutions. Correctly identifying the problem is 50% of the solution. While scientists can get the science right, the politics is typically beyond scientific reach. We heard native speakers discussing how they struggle with “on-reserve” water quality challenges with little federal support. One large reservation, Saddle Lake, ended up doing additional testing to Health Canada’s routine tests. From those results, Chief and Council called a boil water advisory against the wishes of Health Canada. Some four months later, Health Canada was questioned by the Edmonton Sun about Saddle Lake, and Health Canada then decided to do its own extensive tests on Saddle Lake’s water. They finally decided it was time to also call a boil water advisory.

A Public Works Director from a native community attending the conference was so inspired that he went back to his community and enforced a rapid upgrade of its distribution system the week after our meeting. Native communities are calling every day with concerns regarding their water supplies and asking SDWF for help to improve awareness and education within their communities on the issues surrounding unsafe drinking water. Some rural communities are now also starting to call asking “How can they help SDWF to ensure that rural municipalities act responsibly to ensure their water is safe.”

Less than one hour after DVDs of conference speakers were made available, delegate orders flooded the SDWF office. There is no doubt

that the Future of Water Treatment rests with people who make it their business to become educated, improve awareness among their citizens, and act responsibly to provide safe drinking water.

With recent warnings by the World Health Organization regarding drinking water, the time for complacency has vanished. Better treatment processes at the water plant and complimentary in-house purification systems are being implemented in small communities both in Canada and elsewhere promising truly safe drinking water. It even looks as if some of these pioneering communities may lead cities to better water. It is gratifying that Yellow Quill First Nation’s struggle for safe drinking water which resulted in the development of integrated biological and Reverse Osmosis treatment will be used as one of two “positive” case studies at an aboriginal United Nations Forum in April 2005. The second case study is from Bolivia.

This editorial was written during time I spent at the Technical University of Denmark. I had the opportunity to meet with some of the most prominent drinking water and wastewater treatment researchers in the world and I was thrilled with the now rapid march towards solutions across many continents. And, as most scientists live by the motto “publish or perish” I have recently finalized two scientific publications with a scientist from the Technical University of Denmark.

Defining problems and putting forward solutions through scientific publications and articles in the popular press will hopefully lead government agencies in Canada to become part of the solution rather than the problem. A bit like, you can lead a horse to water, but can you make him drink? ■

*For more information, please contact the Safe Drinking Water Foundation at [www.safewater.org](http://www.safewater.org).*



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