

The Drinking Water Challenge

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The definition of quality drinking water is universal:

Drinking water should be clear, colourless and odourless. It should not contain disease-causing microorganisms (pathogens) or harmful chemicals.

Agreement on how to reach the above goal is, however, anything but universal. The responsibility for ensuring that drinking water meets the above criteria often rests with government agencies. Even when drinking water is produced and distributed by private companies, government agencies will usually set the "guidelines" or "standards" for the quality of the water.

This begs two questions: what are guidelines, and what are standards?

Guidelines are simply that, guidelines. This is something one should try to achieve. Standards, in contrast, are enshrined in law and are something one must achieve or there can be real consequences. Those consequences could see a water treatment plant that has violated microbial standards spending a lot of money to "advertise" in newspapers or on television that the consumers' right to safe drinking water has been compromised and that the drinking water treatment plant is sorry (this is the US approach).

Most countries in the developed world have established drinking water standards (including the U.S. and the European Union). This leaves Canada almost alone in having only guidelines (the health-based criteria in the Canadian Guidelines have been adopted by Quebec and Alberta as standards). To put guidelines and standards (standards are the same as regulations) in another perspective, the following example is given:

Canada has traffic regulations. If you drive 200 km an hour from Saskatoon to Regina, chances are pretty good that you will receive a stiff fine. If, instead, Canada had traffic guidelines there would be no legal means by which somebody could fine you for driving 200 km per hour. Do you think that you would comply in the same fashion to traffic guidelines as to regulations?

Who implements drinking water guidelines and standards?

In most industrialized countries, federal government agencies have the ultimate responsibility for safe drinking water (for example the United States). In Europe, the European Union has ultimate responsibility, which means all 15 countries are implementing safe drinking water measures jointly. In Canada, the provinces have ultimate responsibility for safe drinking water. What's the problem with this?

In the United States, some 270 million people are regulated by the same drinking water standards; in Europe another 310 million people are regulated by a uniform set of drinking water standards.

In contrast, in Saskatchewan, one million people are trying to follow the Saskatchewan Drinking Water Quality Guidelines. The result of this is that no provincially sponsored research is carried out in Saskatchewan to ensure that drinking water is safe. In fact, the only substantial drinking water research in Canada is conducted by a few universities, and urban centres with a large tax base (like Calgary, Edmonton, Regina and Saskatoon). Since drinking water is not a federal mandate, the federal effort is minimal. In contrast, the safe drinking water efforts of both the United States and the European Union are substantial. If only our water on the Canadian prairies was similar to what the Americans and Europeans have to treat, we could simply import their research solutions!

Are drinking water guidelines in Canada similar to Europe and the United States?

No. The United States and Europe have drinking water quality regulations that are substantially different from Canada. The United States implements the most stringent microbial control in the world for municipally distributed drinking water. The European Union implements the most stringent pesticide contamination standards in the world. Municipally treated drinking water in Europe and the United States therefore requires more extensive treatment before distribution than drinking water distributed in Canada.

How does the above affect rural Saskatchewan?

In rural Saskatchewan, we have some of the most challenging water sources in the world. These water sources need extensive treatment before they can be used for human consumption without negative health effects. How to treat this water to make it safe has been left to each small community and individual users. We need to treat water sources that are far more difficult to treat than what is used in the United States and the European Community, without research support.

Why do we need to worry?

Despite stringent regulations in the United States and Europe, discussions are presently being held to make them even more stringent. This is in response to the findings that an increasing number of diseases are attributed to water-borne microbes and chemicals.

Both in the United States and Europe the conclusion has been made that the costs to society of not dealing with these problems are much greater than the costs of dealing with them.

In Saskatchewan, unfortunately, the most expensive option has been used for the past ten years. With drinking water quality responsibilities vested with provinces in Canada, the prospects for safe drinking water in rural areas do not look good.

Given this need, it was no coincidence that the formation of the Safe Drinking Water Foundation happened in Canada. By working together with all levels of government, universities, and research institutes in Canada and abroad, the Safe Drinking Water Foundation is laying the ground work for research into rural drinking water that has solid scientific and financial support.

You can help.

We are a charitable not-for-profit agency and we will send tax receipts for donations of twenty dollars and more. Supporters will also receive ***the Safe Drinking Water Newsletter - a full-colour newsletter highlighting safe drinking water activities in rural areas.***

Our address is 11 Innovation Blvd., Saskatoon, SK S7N 3H5 or look us up at our website at: <http://www.safewater.org>. Our email address is water@sk.sympatico.ca, or you can fax us at (306)975-5143. ■