

TCE - WATER WOES

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There's something in the water in thousands of Canadian homes. It's a dangerous contaminant but unlike E. coli, it doesn't kill quickly. It's TCE: trichloroethylene and it can do irreparable harm, especially to children. Beckwith, Ontario - near Ottawa - is just one town where TCE in the water has people really worried.

Rob and Cathy Pretty moved to Beckwith three years ago. They've been drinking only bottled water for more than a year now. "I couldn't believe that, you know, we moved into a brand new house in a brand new subdivision and twenty months later somebody drops me off a letter telling me that my water is unusable. I'm still in shock today when I think about it," Rob Pretty told *Marketplace*.

Cathy Pretty is concerned about the water they were using before they were notified about Beckwith's water problems. She was a few months' pregnant when they moved in. She drank a lot of water, bathed their daughter, and mixed water with Formula when her son was born. "So I was thinking, was I polluting my child? Was I going to make him sick somewhere down the line?"

Trichloroethylene is a metal degreaser still widely used in industry. In the 1960s and 1970s, TCE was commonly dumped in landfills and occasionally spilled in industrial accidents. It's been seeping into groundwater ever since. That's how TCE got into the drinking water of thousands of Canadians who rely on wells. If you saw the movie *A Civil Action* (John Travolta), you've heard of Woburn, Massachusetts, where TCE was blamed for the high cancer rates.

Toxicologist Poh Gek Forkert is an expert on the effects of trichloroethylene on the human body. "It's a carcinogen in the liver, in the kidney, in the lung. As well, it causes, upon exposure, prostate cancer and cervical cancer," Forkert said. TCE was found in a municipal well in Barrie, Ontario. The mayor, Jim Perri, ordered it shut down. In Shannon, Quebec, near Quebec City, high TCE levels prompted officials to hand out water filters. But there's still no permanent solution. "We should become more vigilant in monitoring its presence, especially in drinking water," Forkert told *Marketplace*.

But Health Canada appears to be less concerned about TCE. "We've had some information provided to us to show that there is some TCE contamination in some drinking water supplies but the levels are quite low," Health Canada's Steve Clarkson told *Marketplace*. "They are considerably below the drinking water quality guideline that Health Canada set in conjunction with its provincial partners." Health Canada's guideline allows for no more than 50 parts per billion of TCE in drinking water. It's a guideline -- not a law. It's also the highest allowable limit of any country that has set allowable limits.

MAXIMUM ALLOWABLE TCE LEVELS IN DRINKING WATER AROUND THE WORLD (parts per billion - ppb)

- United States - 5 ppb - excep
 - Arizona - 3.2 ppb
 - Florida - 3 ppb
 - New Hampshire - 2.8 ppb
 - Rhode Island - 2.5 ppb
 - Wisconsin - 1.8 ppb
 - New Jersey - 1 ppb

- European Union - 10 ppb (new proposed value - 3 ppb)
- Australia - 30 ppb

- Canada - 50 ppb. Health Canada says it stands behind its guideline - 50 ppb - but adds that it's under review.

Study finds thousands of Canadians rely on tainted water

Marketplace obtained a Health Canada study conducted in 1995. It reveals that 14,000 Canadians had been drinking water with TCE at levels above the guideline. The study looked at about 25 per cent of Canadians who were using wells. The study has never been publicly released. While many of the contaminated sites in the study have now been cleaned up or wells closed, the study gives a glimpse into how much TCE was in ground water in Canada before 1995.

Among the study's findings:

- 28 sites had TCE levels above 50 ppb - including
- Amherst, Nova Scotia
- Fredericton, New Brunswick
- Ville Mercier, Quebec
- Rockwood, Manitoba

In each of the above cases, the TCE-contaminated wells were abandoned or cleaned up. The study did not look at Beckwith or Shannon, where TCE was found since 1995.

Old dump to blame?

In Beckwith, people believe TCE entered their groundwater at the site of the old municipal dump. A local group has been formed to take action on TCE. The group's research suggests TCE has contaminated an area of groundwater eight kilometres long and as much as five kilometres wide.

The Beckwith group has had some success in their battle for solutions. The Ontario government has provided filters to those homes with TCE in their water at more than five parts per billion. But after two years of angry town meetings, they only have a temporary solution. What they're demanding are new, tougher standards on TCE levels in Canadian drinking water. A legal limit, along the lines of the American limit of 5 ppb.

Health Canada stands behind its guideline - 50 ppb - but adds that it's under review. We asked Health Canada's Steve Clarkson if he'd be willing to drink water that exceeded the 50 ppb guideline. "On a one time occasion, yes," he said. "But if I had to do it day in and day out I might re-evaluate it. But on a one-time occasion I'd have no problem drinking the water."

But drinking water containing TCE isn't the only concern. The Pretties worry about bath time because TCE can also be absorbed through the skin and the lungs. Even with filters, there's still some TCE in the bathwater. "When we first got our notice from the people who gave us the notice we weren't supposed to drink it, we weren't supposed to wash our clothes in it. We weren't supposed to have a bath in it," Rob Pretty said.

Toxicologist Poh Gek Forkert has this advice for the people of Beckwith: "If I were a resident of Beckwith, I would drink and cook with bottled water. I would have very short showers or very short baths or, if possible, rinse off with a hand-held shower. With the children, I would certainly limit their exposure to water."

Rob Pretty says he'd like to stay in Beckwith. "We don't want to move, necessarily. We'd prefer to stay. We certainly get along well with all of our neighbours. If one positive has come out of this it is that it has drawn people together." All they want is to be assured that their water is safe. They're waiting for Health Canada's priority review of TCE - but that may take years.

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