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Walkerton and Source Water Protection: *Ten Years Later*

What happened in Walkerton in May 2000?

In May 2000, after a few days of very heavy rainfall, the town water supply in Walkerton, Ontario became contaminated with E. coli bacteria. This highly dangerous bacteria entered the town well as surface runoff.

Seven people died as a result of the contamination and over 2,000 became ill in a town with a population of approximately 4800 people. Ten years later, effects of the illness are still felt by a number of Walkerton residents.

What happened as a result of the Walkerton tragedy?

It has been estimated that the Walkerton water tragedy cost millions of dollars and much of the blame has been laid on different aspects of the Walkerton Public Utilities Commission.

In the wake of the Walkerton tragedy, the provincial government established a public inquiry known as the Walkerton Commission. Justice Dennis O'Connor led the Commission and released a two-part report in 2002. Since the report was released, Ontario's system of managing and protecting municipal drinking water has been overhauled. The foundation of this new system was based on Part 2 of the Walkerton Inquiry report, which recommended a multi-barrier approach to protecting drinking water.

What is the Multi-Barrier Approach to Protecting Drinking Water?

The Multi-barrier approach to protecting drinking water recognizes that there is always some risk of failure for any technology, system or person and seeks to reduce that risk by building several layers of defense instead of relying on just one, such a treatment.

The multi-barrier approach in Ontario includes taking actions to prevent our sources of water from getting contaminated, using adequate water treatment and distribution systems, water testing and training of water managers. In the last ~~40~~ten years, Ontario has worked to strengthen all of these barriers. Because of its complexity and scope, the last barrier to be put in place has been the protection of drinking water sources, known as Source Protection.

What is Source Protection?

Drinking water in Ontario comes from two major sources: groundwater and surface water. Groundwater is pumped from underground aquifers, and surface water sources include lakes, rivers, streams and wetlands. Source Protection means protecting the quality and quantity of these sources of drinking water from contamination and overuse. Because all water sources are connected through the water cycle, the best way to protect them is on a watershed basis.

Ontario's approach to source water protection was established under the Clean Water Act in 2006. This legislation requires communities to develop source protection plans in order to protect their municipal sources of drinking water. These plans identify potential threats to drinking water and develop strategies to reduce or eliminate these threats.

What is the Role of Conservation Authorities in Source Protection?

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Because source protection plans can affect so many different stakeholders, the Clean Water Act established 19 Source Protection Committees across the province with representation from municipalities, agriculture, industry, business, community groups, First Nations and the public to oversee the development of watershed-based Source Protection Plans.

Conservation Authorities, which are watershed-based resource management agencies in Ontario, have been designated as Source Protection Authorities and tasked with providing technical and administrative support to the Source Protection Committees.

What is the role of the Source Protection Committees?

The Source Protection Committees, which were established in 2007, were first tasked with completing Terms of References to guide the overall source protection process. Their next tasks are to submit Assessment Reports and Source Protection Plans to the province for approval.

What is an Assessment Report?

Assessment Reports are comprehensive, technical studies that look at an entire watershed, the factors influencing the quality and amount of water (quantity) found there. Assessment Reports include information such as the physical characteristics of the land, land uses, where drinking water sources are located, how much water is being used and how much is available for future uses, where vulnerable water source areas are located, what issues already compromise drinking water sources and what threatens drinking water sources from overuse and contamination. Assessment Reports classify threats as significant, moderate and low.

Assessment Reports provide Source Protection Committees with information that will help them determine how best to protect the quality and amount of their local water resources from local threats. They are the basis for developing Source Protection Plans and making local policy decisions for protecting drinking water quality and quantity.

What are Source Protection Plans?

Approved Assessment Reports form the basis for developing Source Protection Plans that will mitigate identified threats.

Source Protection Plans will develop policies that reduce or eliminate all identified significant threats in the watershed. This could include development of risk management plans for individual properties; regulation of activities through a variety of provincial instruments, prohibitions or restrictions on land uses, as well as voluntary stewardship measures.

Source Protection Plans must be submitted to the province for approval in 2012.