

Safe Drinking Water Act

Uranium testing under O. Reg. 170/03 for regulated drinking water system

Ministry of the Environment

August 7th, 2008

Protecting our environment.

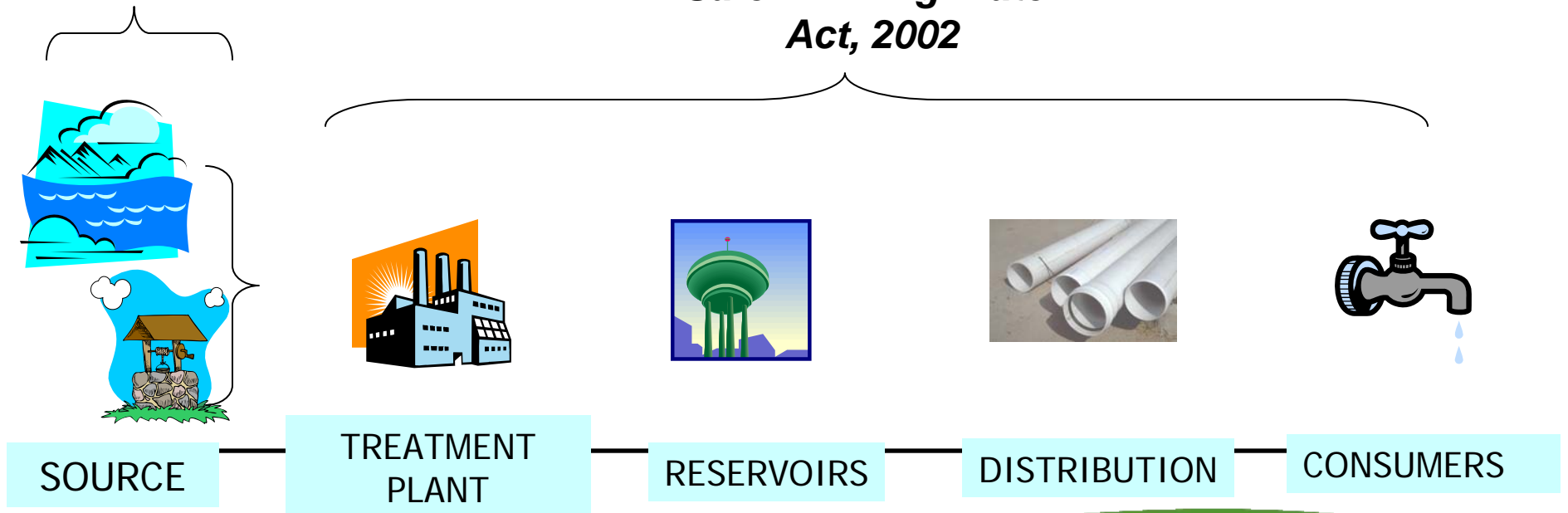


Ontario

Ontario's Drinking Water Safety Net

**Clean Water
Act, 2006**

**Safe Drinking Water
Act, 2002**



Protecting our environment.



Safe Drinking Water Act

Lays out legislative requirements for:

- Accreditation of Operating Authorities
- Municipal Drinking Water Systems
- Regulated Non-Municipal Drinking Water Systems
- Drinking Water Testing
- Inspections
- Compliance and Enforcement
- Appeals
- Offences



O. Reg. 170/03- Drinking Water Systems Regulation

- Requirements of Reg. 170/03 apply to:
 - Municipal residential drinking water systems
 - Non-municipal year round residential drinking water systems
 - Drinking water systems serving a Designated Facility
- Designated facility - Serves water to a susceptible population - example:
 - children's camps
 - nursing homes
 - schools
 - hostels and shelters
 - other similar facilities

Sampling Requirements

Owners and operators of drinking water systems regulated under the Safe Drinking Water Act have bacteriological and chemical monitoring requirements that are dependent on the category of the drinking water system.

Microbiological samples:

- Raw water
- Treated water
- Distribution system water
- E. coli, total coliform, heterotrophic plate counts (HPC)

Chemical testing

- Raw water
- Lead, Sodium, Fluoride
- Organics/Inorganics (including uranium)
- Nitrate and Nitrate



Safe Drinking Water Act

- The *Safe Drinking Water Act* (SDWA) provides a definition of “potable”, which indicates that for water to be considered potable, it must meet the Ontario Drinking-water Quality Standards found in new Regulation 169/03 made under the SDWA.
- Uranium is listed under O. Reg. 169/03 as a chemical standard.
- The maximum acceptable concentration of uranium in drinking water, as per the Ontario Drinking Water Standards (O. Reg 169/03), is 0.02 mg/L (chronic studies).

Safe Drinking Water Act

- All laboratory results for mandatory water samples are reported to the MOE through the Drinking Water Information System (DWIS).
- The Safe Drinking Water Branch in the MOE's Drinking Water Management Division has a compliance and inspection program for municipal residential drinking water systems and non-municipal drinking water systems that assesses compliance with these monitoring requirements.



Safe Drinking Water Act

- If a drinking water system regulated under the Safe Drinking Water Act is determined to have naturally occurring elevated uranium concentrations in the raw water sources, Ministry staff and the local Health Unit will work closely with the owner of the system to protect public health and to ensure that a safe potable water supply is maintained for users of the water systems.
- In addition, the Ministry's Standards Development Branch will provide technical assistance with respect to treatment technologies.



Local sample results

- Samples collected for uranium between July 1, 2006 and July 1, 2008 for drinking water systems located within the MOE's Kingston and Ottawa District Offices that are subject to the *Safe Drinking Water Act* demonstrate:
 - Only five drinking water systems yielded analytical results above the laboratory's method detection limit
 - Only one of those five systems reported a uranium test result above the Ontario Drinking Water Quality Standard of 20 ug/L
- Samples collected for uranium between July 1, 2004 and June 30, 2006 for drinking water systems located within the MOE's Kingston and Ottawa District Offices that are subject to the *Safe Drinking Water Act* demonstrate:
 - Two drinking water systems yielded results above the laboratory's method detection limit:
 - Both drinking water systems reported at least one test result above the Ontario Drinking Water Quality Standard.