

The Role of the Walkerton Clean Water Centre in Providing Safe Drinking Water

Keeping Ontario's Drinking Water Safe

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WALKERTON CLEAN WATER CENTRE

- Established by the Ontario Government as one of the steps it has taken to ensure clean drinking water
- Opened in Walkerton on January 4, 2005
- Official Grand opening was May 31, 2005

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OUR VISION & OUR GOAL

- To create a world-class institute dedicated to safe and secure drinking water for the people of Ontario.
- To become renowned for our knowledge-based, innovative approach to training.

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Implementing the Walkerton Inquiry Recommendations

Recommendation 63

The Ministry of the Environment should take measures to ensure that training courses are accessible to operators in small and remote communities and that the courses are tailored to meet the needs of the operators of these water systems.

Recommendation 64

The Ministry of the Environment should meet with stakeholders to evaluate existing training courses and to determine the long-term training requirements of the waterworks industry. The ministry should play an active role in ensuring the availability of an array of courses on the subjects required to train operators.

Recommendation 92

The provincial government should actively offer, on a cost recovery basis, its training facilities and curriculum to First Nations water system operators

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KEY INITIATIVES

- Training delivery and coordination
- Information & advice for small systems
- Technology demonstration
- Education & outreach
- Research advice to minister

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Courses Delivered by WCWC

Two mandatory courses :

Preventing Water Borne Illnesses, and Entry-Level Course for Operators in Training. In addition, delivering the following specialized courses:

- | | |
|--|---|
| <input type="checkbox"/> Basic Chemistry for Water Operators | <input type="checkbox"/> Disinfection By Chlorination & Chloramination |
| <input type="checkbox"/> Basic Mathematics for Water Operators | <input type="checkbox"/> Current Studies in Water Plant Operation |
| <input type="checkbox"/> Ozone Design, Operation & Optimization | <input type="checkbox"/> Treatability Studies & Jar Testing Workshop |
| <input type="checkbox"/> Groundwater, Wells and Well Pumps | <input type="checkbox"/> Water Quality Analyst |
| <input type="checkbox"/> Risk Assessment & Decision Analysis | <input type="checkbox"/> Water Treatment Operations |
| <input type="checkbox"/> Filtration | <input type="checkbox"/> Fire Hydrant Inspection in Compliance with the Ontario Fire Code Reg. 650/05 |
| <input type="checkbox"/> Ultraviolet Light Treatment of Drinking Water | <input type="checkbox"/> Water Valve Operation & Maintenance |
| <input type="checkbox"/> Water Quality Sampling & Monitoring | <input type="checkbox"/> Handling Pathogens in Drinking Water Systems |
| <input type="checkbox"/> Basic Coagulation and Flocculation | |
| <input type="checkbox"/> Chlorination and Disinfection | |

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Status of Training

As of May 2007;

Training was delivered to more than **6000** operators and professionals in the drinking water industry

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Training at the Walkerton Clean Water Centre



HELP FOR SMALL SYSTEMS

- Unique challenges and needs.
- Developing programs and tools
- Partnership developed with Colleges in Northern Ontario
- Mobile Pilot unit will be available for small water system operators to provide hand-on training

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Technology Demonstration

- **Initiate design and development of the demonstration centre in Walkerton (Development of an Interim Facility).**
- **Request of Donation for Water Treatment Equipment released in January 2006**
- **An Overwhelming Response from Industry Manufacturers and Suppliers (Donations exceeded \$500,000)**
- **The Interim Technology Demonstration Facility was officially opened on June 19, 2006**

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Technology Demonstration Facility



Technology Demonstration Facility



WCWC Technology Demonstration Facility



Water Quality Sampling and Testing at WCWC



First Nations Operators Training

Training was delivered to the following First Nation Communities ;

Ojibways of Pic River First nations, Aundeck-Omni-Kaning (Ojibways of Sucker Creek First Nation), and Sheguiandah First Nation.



First Nations Operators Training-Health Canada, First Nations and Inuit Branch

The Walkerton Clean Water Centre and Health Canada, First Nations and Inuit Branch, worked together to provide training to First Nations operators and as a result, WCWC hosted 40 attendees for two days of training in Walkerton and Toronto.

Participation in Research

- Sponsor and support a study to investigate the effect of membrane filtration to remove pharmaceuticals and endocrine disruptors.
- Work on a Reverse Osmosis project to evaluate the potential of using this technology to resolve treatment and water quality issues
- Investigate the effect of Ozone on coagulation at cold water temperatures
- Support research on disinfectant by-products (DBPs)
- Sponsor a study to evaluate the removal of Pharmaceuticals and Personal Care Products using Advanced Oxidation processes

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WCWC Scholarships

- The Walkerton Clean Water Centre awarded the Second Round of Scholarships on May 7, 2007 (First round of scholarships was in 2006)
- Three Graduate Students received the Scholarships
- The Three Students were from the University of Toronto and the University of Western Ontario

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EDUCATION & OUTREACH

- The Centre Website was launched in July 2005

[WWW.WCWC.CA](http://www.wcwc.ca)

- Clearinghouse for education and outreach on technical, scientific and regulatory information.

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