



The Canadian Institute's

# DRINKING WATER QUALITY MANAGEMENT

**HEAR STRATEGIES THAT  
WORK FROM:**

Canadian Water Network  
Canadian Water and Wastewater Association  
Walkerton Clean Water Centre  
AWWA Research Foundation  
University of Guelph  
University of Waterloo  
POLIS Project on Ecological Governance  
City of Hamilton  
Region of Halton  
Willms & Shier Environmental  
Lawyers LLP  
Dillon Consulting Ltd.  
Infrastructure Dynamix Inc.  
Environmental Careers  
Organization Canada

Receive critical regulatory updates and leading-edge strategies from our outstanding roster of municipal leaders and industry experts:

- **UNDERSTAND** the latest testing and sampling requirements for municipalities
- **ACHIEVE** financial sustainability by developing effective asset management programs
- **LEARN** about the newest treatment options for detecting contaminants in source water
- **EXAMINE** the latest source protection strategies for surface water and groundwater
- **GAIN** practical strategies in communicating your level of service and risk-management strategies to stakeholders
- **ACQUIRE** the newest approaches to recruiting qualified water system operators

**PLUS!** Sharpen your skills by attending our Interactive Learning Session: Wednesday, January 30 (9:00 a.m.–12:00 p.m.)  
**A Guide to Developing Effective Strategic Asset Management Programs That Meet the Needs  
of Both Public Works and Finance Departments**



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# EXPAND YOUR WATER SAFETY PROTECTION PLANS AND MINIMIZE RISKS TO THE PUBLIC

Delivering safe and clean drinking water remains a top priority for all municipalities. Emerging issues such as pharmaceuticals and other contaminants entering source water are only some of the challenges that must be overcome.

**The Canadian Institute's Drinking Water Quality Management** will provide you with the information you need to effectively mitigate threats to water supply now and in the future.

Highlights of this event include:

- Dr. Rob de Loë, **University of Guelph**, delivers the latest integrated water resource management strategies
- T. Duncan Ellison, **Canadian Water and Wastewater Association**, outlines the pros and cons of rainwater harvesting and greywater reuse
- Peter M. Huck, **University of Waterloo**, investigates the latest treatment technology
- Dr. Saad Jasim, **Walkerton Clean Water Centre**, and Mark Servos, **Canadian Water Network**, analyze the risks associated with pharmaceuticals, personal care products and endocrine disruptors in source water

- Guy Fohier, **Dillon Consulting**, and Kevin Bainbridge, **City of Hamilton**, share their strategies in achieving financial sustainability
- Juli Abouchar, **Willms & Shier Environmental Lawyers LLP**, and David Kerr, **City of Hamilton**, examine best practices in source water protection
- Mark Bajor, **Region of Halton**, demonstrates how closed-circuit television can assess the condition of underground pipes

Don't forget to sign up for our Interactive Learning Session, which has been developed to help city officials overcome long-term planning challenges.

**Wednesday, January 30, 2008**  
**9:00 a.m.-12:00 p.m.**

***A Guide to Developing Effective Strategic Asset Management Programs That Meet the Needs of Both Public Works and Finance Departments***

**Be where your colleagues and competitors are!**  
**Sign up now by calling 1-877-927-7936 or visit us online at [www.CanadianInstitute.com/water](http://www.CanadianInstitute.com/water)**

## SPEAKERS

**Juli Abouchar**

Partner, Willms & Shier  
Environmental Lawyers LLP

**Kevin Bainbridge**

Department of Public Works  
City of Hamilton

**Mark Bajor**

Design Supervisor  
Planning & Public Works Department  
Region of Halton

**Oliver M. Brandes**

Water Sustainability Project  
POLIS Project on Ecological  
Governance, University of Victoria

**Dr. Rob de Loë**

Professor, Department of Geography  
University of Guelph  
Canada Research Chair in  
Water Treatment

**T. Duncan Ellison**

Executive Director  
Canadian Water and  
Wastewater Association

**Guy Felio**

Infrastructure, Engineering and  
Policy Consultant Dillon  
Consulting Ltd.

**Leo Gohier**

Director  
Infrastructure Dynamix Inc.

**Peter M. Huck**

NSERC Chairholder in  
Water Treatment  
Department of Civil Environmental  
Engineering, University of Waterloo

**Dr. Saad Y. Jasim**

Chief Executive Officer  
Walkerton Clean Water Centre

**Richard J. Karlin**

Deputy Executive Director  
AWWA Research Foundation

**David Kerr**

Senior Project Manager,  
Source Water Protection Group  
City of Hamilton

**Mark Servos**

Scientific Director  
Canadian Water Network

**Grant Trump**

Executive Director  
Environmental Careers  
Organization Canada

**Register at 1-877-927-7936 or in Toronto 416-927-7936 or [www.CanadianInstitute.com/water](http://www.CanadianInstitute.com/water)**

## Day One: Monday, January 28, 2008

- 8:00 Registration Opens and Coffee Served ☕
- 9:00 Opening Remarks from the Conference Chair
- 9:15 Addressing the Future of Drinking Water Quality by Province: Developing Successful Integrated Water Resource Management Strategies

**Dr. Rob de Loë**  
Professor, Department of Geography  
University of Guelph  
Canada Research Chair in Water Management

- What social, economic, environmental and technical aspects should be taken into consideration in managing water resources?
- What governance strategies are provinces implementing and how successful are they?
- How can governments, business and civil society groups work together to promote water security?
- Developing a participatory approach: raising awareness of the importance of water among policymakers and the general public.

- 10:00 Networking Coffee Break ☕

- 10:15 Examining the Latest Source Protection Strategies for Surface Water and Groundwater

**Juli Abouchar**  
Partner  
Willms & Shier Environmental Lawyers LLP

**David Kerr**  
Senior Project Manager,  
Source Water Protection Group  
City of Hamilton

- What are the newest innovative approaches to prevent groundwater and surface water source contamination?
- How do you identify potential sources of water contamination?
- Strategies to work with the agricultural industry to prevent runoff and develop best practices to prevent contamination
- How do you accommodate for population growth and urban runoff into source water protection plans?
- Legal framework for source protection in Ontario
  - What are the most common challenges to compliance and how can they be overcome?
  - Potential impacts on industrial and municipal operations
  - Enforcement of source protection restrictions against landowners and businesses

- 11:15 Critical Updates on Drinking Water Regulation: the Latest Testing and Sampling Requirements for Municipalities

- What stringent requirements do municipalities have to comply with under the Clean Water Act and the Drinking Water Management Standard?

- What monitoring strategies are required?
- What are the most common contaminants entering our water system?
- What emerging contaminants should we be testing for?

- 12:00 Networking Luncheon for Delegates and Speakers 

- 1:15 Analyzing the Presence of Pharmaceuticals, Personal Care Products and Endocrine Disruptors in Source Water and the Effect of Advanced Technologies on their Removal

**Dr. Saad Y. Jasim**  
Chief Executive Officer  
Walkerton Clean Water Centre

**Mark Servos**  
Scientific Director  
Canadian Water Network

- What pharmaceuticals, personal care products and endocrine disruptors are present in source water and drinking water?
- What is the potential effect of pharmaceuticals and endocrine disruptors on human health?
- Assessing the effect of conventional treatment processes on the removal of these chemicals
- What is the effect of advanced technologies on the removal of these compounds?
- Addressing the state of current research in Canada on this issue

- 2:15 Networking Refreshment Break

- 2:30 Rainwater Harvesting and Greywater Reuse: Examining the Benefits and Limitations

**T. Duncan Ellison**  
Executive Director  
Canadian Water and Wastewater Association

- What are potential uses for rainwater and greywater?
- Where can rainwater harvesting and greywater reuse be implemented?
- What infrastructure is needed to implement these systems?
- What are water quality issues surrounding greywater and rainwater harvesting?
- What are the expected savings of implementing rainwater harvesting and greywater reuse strategies?

- 3:15 Assessing Current Best Practices in Drinking Water Treatment: Exploring What the Future Holds

**Peter M. Huck**  
Natural Sciences and Engineering Research Council of Canada (NSERC) Chairholder in Water Treatment  
Department of Civil and Environmental Engineering  
University of Waterloo

- How will disinfection continue to evolve?
- Latest treatment technologies: Current status and future evolution
- Current and future treatment options for small water treatment plants

- Filtration options: The increasing use of membranes
- Creating robust treatment facilities: The physical, human and institutional components

4:00 Closing Remarks from the Conference  
Chair Conference Adjourns

## Day Two: Tuesday, January 29, 2008

8:30 Coffee Served ☕

9:00 Opening Remarks from the Conference Chair

9:15 Achieving Financial Sustainability: Developing Effective Strategic Asset Management Programs

**Guy Felio**  
Infrastructure, Engineering and Policy Consultant  
Dillon Consulting Ltd.

**Kevin Bainbridge**  
Department of Public Works  
City of Hamilton

- What are the critical components of a long-term strategic asset management plan?
- Assessing available options for the payment of future water services:
  - Provincial and/or federal funding
  - Intergenerational fairness
- How do you achieve a sustainable funding model?
- Strategies in forecasting your future capital expenditure requirements
- How do you prioritize your infrastructure needs?
- Understanding the new municipal accounting standard (PSAB 3150) as it relates to asset management
  - Assessment of inventory
  - Knowing your assets' depreciated value
- What is the future role of this accounting standard?
- Understanding the role of public works officials in implementing this new standard

10:15 Networking Coffee Break ☕

10:30 Thinking Beyond Pipes and Pumps: Making the Case for Conservation and the Soft Path for Water

*By illustrating the potential of water conservation and the soft path for water, our publication Thinking Beyond Pipes and Pumps urges communities to take water security to the next step — to look “beyond the pipes and pumps” and develop new ways of managing water that offer opportunities for big savings of both resources and capital. It identifies a new kind of infrastructure with an emphasis on decentralized technologies and the “social infrastructure” of strategic long-term planning and community-based engagement. This approach shifts water management toward a “soft path” for water. As members of a national soft path research team, we have developed, tested and refined the methodological approach and tools for water soft path planning. Our “Back of the Envelope” framework illustrates the impact of combining various micro measures (e.g. low-flow toilets, education,*

*conservation pricing, Xeriscaping, etc.) on macro conditions (i.e. total water use).*

**Oliver M. Brandes**  
Senior Research Associate  
POLIS Project on Ecological Governance

- How does this new approach foster behavioral changes at the community level?
- What is a “social infrastructure” and why is it important to build and maintain?
- What is the soft path for water?
- What is the “back of the envelope” backcasting framework?

11:15 Effective Techniques in Maintaining Water Quality in Distribution Systems

**Richard J. Karlin**  
Deputy Executive Director  
AWWA Research Foundation

- What flushing techniques can be implemented to mitigate the risks of contaminating water?
- Best practices for reservoir management
- Best practices for tank management
- What techniques have proven to be most effective to date?
- How do you prevent lead from entering the water system?

12:00 Networking Luncheon for Delegates and Speakers 

1:15 Assessing the Condition of Underground Water Infrastructure Using Closed-Circuit Television

**Mark Bajor**  
Design Supervisor  
Planning & Public Works Department  
Region of Halton

- How has closed-circuit television inspection changed the industry?
- Applying closed-circuit television inspection to check the maintenance and design of underground water infrastructure
- Using closed-circuit television to identify short- and long-term needs of underground water infrastructure
- How effective has this technology been to date?
- Understanding the pros and cons of implementing this technology
- Investigating other alternatives to assess the condition of underground water infrastructure
- What are associated costs in implementing closed-circuit technology?

### SPONSORSHIP & EXHIBITION OPPORTUNITIES

Maximize your organization's visibility in front of key decision-makers in your target market. For more information, contact Senior Business Development Executive **Christopher Neely** at 416-927-0718 ext. 313, toll-free 1-877-927-0718 ext. 313 or by email at [c.neely@CanadianInstitute.com](mailto:c.neely@CanadianInstitute.com)

- 2:00 Networking Refreshment Break
- 2:15 Good PR: Communicating Your Level of Service and Risk-Management Strategies for Effective Stakeholder Relationships

**Leo Gohier**

**Director**

**Infrastructure Dynamix Inc.**

- Recognizing the importance of developing good stakeholder relationships and continued public support for water-related services
- Effectively communicating the factors that affect the management of water resources
- Best practices in public relations strategies: Learning from past mistakes and assessing goals to strive for
- Why we need to communicate even when we don't have problems?
- Are communication, education and public relations the same thing?
- Do we have internal clients? Are they important?
- Who are our external clients?

- 3:00 Recruiting Qualified Water System Operators: Addressing Challenges and Certification

**Grant Trump**

**Executive Director**

**Environmental Careers Organization Canada**

- What training and recruiting programs are being implemented across Canada to help workers shift into the operator role?
- Getting to the root of the problem: What are the causes of the worker shortage?
- What are current operator certification requirements?
- Will a national standard for operators be developed?

- 3:45 Closing Remarks from the Conference  
Chair Conference Concludes

#### WHO YOU WILL MEET

- **Municipal water utility and public works officials**
- **Water facility directors, superintendents, supervisors, operators and foremen**
- **Water treatment, specialists and technologists**
- **Municipal water managers, engineers and planners**
- **Municipal and environmental lawyers**
- **Private sector water engineers, consultants and hydrologists**
- **Contractors and suppliers in the water treatment and distribution industries**
- **Federal, provincial and municipal representatives**
- **Water industry associations**

## INTERACTIVE LEARNING SESSION:

Wednesday, January 30, 2008

9:00 a.m.–12:00 p.m.

### A Guide to Developing Effective Strategic Asset Management Programs That Meet the Needs of Both Public Works and Finance Departments

**Reg Andres**

**Vice-President**

**R.V. Anderson Associates Ltd.**

*There is a lot of discussion about the 'infrastructure gap' that exists in municipal infrastructure between what is currently funded and planned for and what will be required in the future. In this interactive learning session, public works and city financial officers will have the opportunity to collaborate in order to develop long-term asset management plans that will address their municipalities' needs in the future. Both departments have a stake in asset management and communication between the two departments is vital to an effective asset management system that quickly and accurately measures which assets a municipality owns, how much they are worth, and when they will need to be replaced.*

*During the workshop, participants will learn how to:*

- Assess the opportunity presented by PS 3150 as the basis of an effective asset management system
- Develop an action plan that takes into account the requirements of both the finance department and the public works department
- Determine what assets they have and what needs to be included
- Assess the condition and value of these assets and determine when they will need to be replaced
- Develop funding initiatives for the replacement of these assets to close the "infrastructure gap"
- Explore practical case studies of asset management systems

January 28–29, 2008 • Metropolitan Hotel • Toronto

The Canadian Institute's  
**DRINKING  
 WATER  
 QUALITY  
 MANAGEMENT**



**Top Reasons to Attend**

- ✓ Hear the latest strategies from Canadian Water Network, Canadian Water Works Association and Walkerton Clean Water Centre
- ✓ Learn from municipal, academic and industry leaders
- ✓ Receive critical updates on source water protection strategies
- ✓ Get the latest information on developing strategic asset management programs
- ✓ Network with colleagues, competitors, government and industry thought leaders.

REGISTRATION FORM

To expedite your registration, please mention your Priority Service Code

**412V08.S**



ATTENTION MAILROOM: If undeliverable to addressee, please forward to: Public Works Manager, Water Manager, Utilities Supervisor



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STEP 1

CONFERENCE CODE: 412V08-TOR

YES! Please register the following delegate(s) for Drinking Water Quality Management

<input type="checkbox"/> Conference Only	\$1895 + \$113.70 (6% GST) = \$2008.70
<input type="checkbox"/> Conference & Interactive Learning Session	\$2390 + \$143.40 (6% GST) = \$2533.40

Please add the conference materials CD-ROM to my order \$195 + \$15.95 shipping & handling (+ applicable taxes)

\* Volume discounts available to individuals employed by the same organization. Discounts cannot be combined with any other offer.

Register 3 at the same time and get the 4th Free\*

STEP 2

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STEP 3

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I have enclosed my cheque for \$ \_\_\_\_\_ including GST made payable to **The Canadian Institute** (GST No. R106361728) PBN# 106361728PG0001

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**Administrative Details**

VENUE: Metropolitan Hotel  
ADDRESS: 108 Chesnut Street  
TEL.: (416) 977-5000

**Hotel Reservations**

For information on hotel room availability and reservations, please contact Metropolitan Hotel at (416) 977-5000.

**Program Materials**

Conference participants will receive a comprehensive set of conference materials prepared by the speakers. These materials are intended to provide the participants with an excellent reference source after the conference. If you have paid and are unable to attend, the conference materials will be shipped to you upon request only. Request must be received within 30 days upon conclusion of the conference.

**Cancellation and Refund Policy**

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