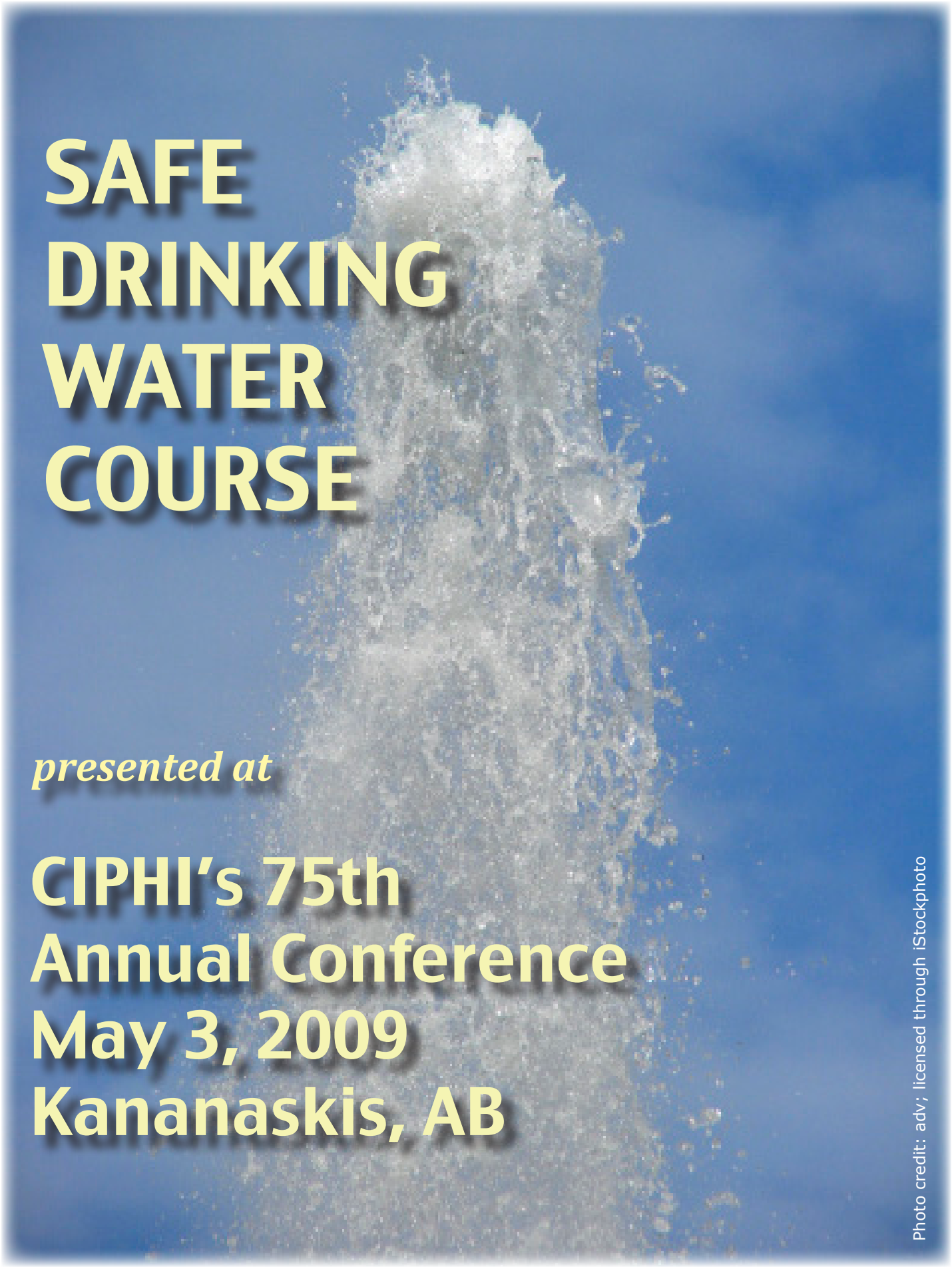

SAFE DRINKING WATER COURSE

presented at

CIPHI's 75th Annual Conference
May 3, 2009
Kananaskis, AB

Thank you to the following people and organizations who have assisted in presenting this course:

Christina Chociolko

Garry Drachenberg

Nelson Fok

Adam Grant

Twyla Legault

Roland Tomuschat

Steve Wallace

Alberta Municipal Affairs, Safety Services

Canadian Institute of Public Health Inspectors
L'Institut canadien des inspecteurs en santé publique

Safe Drinking Water Course

The NCCEH, in partnership with CIPHI, is once again offering a one-day pre-conference course in safe drinking water. This successful course will take place at CIPHI's 75th Annual Conference, May 3, 2009 in Kananaskis, Alberta.

In addition to sessions on specific topics such as the effectiveness of membrane and conventional filtration, microbial risk assessment, and groundwater well construction and operations, a panel discussion on water treatment issues will be featured. Speakers will bring both practical and theoretical knowledge from a range of disciplines.

Draft Agenda

0830-0900	Registration
0900-0915	Opening
0915-1000	Hydrogeology - Groundwater Under the Direct Influence of Surface Water - **Steve Wallace**
1000-1030	*Refreshment Break*
1030-1115	Ground Water Wells - Construction Maintenance and Troubleshooting - **Twyla Legault**
1115-1200	Cost Effective Treatment of Small Ground Water Systems - **Garry Drachenberg**
1200-1300	*Lunch*
1300-1345	Backflow and Cross Connection Issues - **Roland Tomuschat**
1345-1400	*Refreshment Break*
1400-1445	Active Surveillance - PHI's Role with Drinking Water - **Nelson Fok**
1445-1545	Panel Discussion - **All**
1545-1600	Closing and Evaluation

Number of participants: 30
Course fee: $150 (includes lunch and morning/afternoon refreshment breaks)

To register, click here.

For more info, contact Christina Chociolko: 604-877-6265 or email: christina.chociolko@bccdc.ca.

Bios and Abstracts

Garry Drachenberg

Garry Drachenberg is Manager of the Water & Wastewater Process Division of Associated Engineering in Edmonton, Alberta. Garry began his career in 1982 with Alberta Environment where duties included regulatory compliance inspections and troubleshooting of water operational problems in Alberta facilities. Following his rewarding regulatory experience, Garry joined Associated Engineering, specializing in treatability assessments, treatment scheme development, and optimization and design of water treatment plants. His regulatory and engineering know-how is complemented by over 18 years operator certification training experience and a ground level understanding of the needs and challenges faced by operators saddled with different equipment and processes.

Cost Effective Treatment of Small Ground Water Systems

The primary role of treatment is to render the water safe for consumption. Achieving this objective is relatively straight forward, providing appropriate sweat equity has been invested into understanding the "personality profile" of a given water source, identifying the treatment challenges posed by the source, and customizing the treatment scheme to address the need. This presentation will provide an overview of key issues governing treatment selection for small ground water systems with an emphasis on cost effective disinfection technologies designed to meet more stringent regulatory requirements.

Nelson Fok

Nelson Fok is the Science & Technical Director for Environmental Public Health at Alberta Health Services, Edmonton. He is a certified Public Health Inspector and received his Master of Science degree in Environmental Science from the Department of Civil Engineering, University of Alberta. Mr. Fok has been appointed Adjunct Assistant Professor at the Department of Public Health Science, Faculty of Medicine, University of Alberta, and Adjunct Professor at Concordia University College of Alberta. He is the co-author of two American Water Works Association Research Foundation manuals and the technical editor of a manual for health inspectors on drinking water.

Active Surveillance - PHI's Role with Drinking Water

A complete public health program in ensuring safe drinking water should include: 1) preventing waterborne outbreaks from occurring; 2) protecting the public during adverse events through early detection of outbreaks and

proper declaration of boil water advisories; and 3) effectively communicating with utility operators and the public. These processes, with modifications, can be applied to both larger public and smaller semi-public systems. This presentation will identify the risk factors contributing to the contamination of small semi-public systems, and highlight the importance of active surveillance systems that may allow early detection of outbreaks.

Twyla Legault

Twyla Legault is an Industrial Technology Advisor with the National Research Council of Canada. She holds a degree in Environmental Systems Engineering from the University of Regina, with additional studies in groundwater microbio-logy and water chemistry. Prior to joining the NRC, Twyla worked for Agriculture and Agri-Food Canada on the Sustainable Water Well Initiative. Her work included evaluating new technologies used to diagnose, prevent, and treat rural water well and water quality problems. She has delivered water well management workshops at various venues across Canada and internationally.

Groundwater Wells – Construction, Maintenance, and Troubleshooting

Groundwater is the primary source of water for many rural residents of Canada. However, finding an adequate supply of good quality water can be difficult and, once a water well is installed, well yield or water quality problems often develop. This presentation describes some of the more common water well problems faced by rural Canadians and describes how these problems can be resolved or prevented through proper well design, operation, and maintenance. This presentation also provides basic information on water well disinfection methods and well cleaning procedures.

Roland Tomuschat

Roland Tomuschat is a Certified Engineering Technologist and a Plumbing and Gas Safety Codes Officer employed by Alberta Municipal Affairs, Safety Services. He is an active member of both the Western Canada Section of the American Water Works Association's Cross Connection Control Committee and the Canadian Standards Association B64 Technical Committee on Backflow Preventers and Water Pressure Reducing Valves. He has worked for the City of Edmonton's water department as a Cross Connection Control Inspector and Officer beginning in 1987 and joined Alberta Municipal Affairs in 2000. His present duties include interpretation of plumbing, gas, and private sewage codes and standards, along with inspection of problem installations and fire and fatality investigations.

Cross Connection Control and Backflow Prevention

This presentation covers the applicable Codes and Standards and the type of backflow preventer that must be used to eliminate actual and potential connections from contaminated sources entering the potable water supply. It will describe how contaminants enter the potable water and provide examples of cross connections. It will also explore various methods of Cross Connection Control and Backflow Prevention that have been implemented by either the water purveyor or the authority having jurisdiction.

Steve Wallace

Steve Wallace is a groundwater policy specialist with Alberta Environment. He has been involved in a broad range of groundwater programs and issues since joining the Department in 2001, including policy development, groundwater mapping and monitoring, water allocation and licensing, drinking water, groundwater contamination and remediation, and water well education and watershed / land-use planning. Prior to moving to Alberta, Steve worked in Ontario, the United Kingdom, and Africa as a hydrogeologist. Steve holds a B.Sc. in Environmental Earth Sciences from the University of Toronto and an M.Sc. in Hydrogeology from the University of London in the UK, and is a registered professional geologist in Alberta.

Groundwater Under the Direct Influence of Surface Water

Groundwater under the direct influence of surface water (GWUDI) refers to groundwater supply wells that are vulnerable to contamination by pathogens from nearby surface water bodies, usually requiring more stringent treatment protocols than non-GWUDI sources, depending on jurisdiction. This lecture will focus on the hydrogeological factors to be taken into consideration when a GWUDI evaluation is conducted, primarily based on the Alberta experience through its regulatory requirements. Alberta adopts a phased approach, including an initial screening phase, for determining whether a water well source is to be declared as GWUDI.