



Don't miss this opportunity
International expert in New Zealand

**The NZSSES Third Annual International Speaker
Winter Workshop Series
JUNE 2011**

Water Resource Management

PROF. HANS SCHREIER

*Professor Emeritus, Institute for Resources, Environment and Sustainability,
University of British Columbia*

*Back by popular demand after his successful presentation at the
Transitions to Sustainability Conference in December 2010*

HAMILTON - Tuesday 14 June
Hamilton City Council

AUCKLAND – Wednesday 15 June
*MWH – Millennium Centre
600 Gt South Rd Penrose*

DUNEDIN – Tuesday 21 June
Half day afternoon only available
*MWH - John Wickliffe House,
265 Princes Street*

WELLINGTON – Friday 17 June
MWH House - 123 Taranaki St.

CHRISTCHURCH – Thurs 23 June
MWH Taylors Room, 6 Hazeldene Road



Sponsored by Auckland Council

Profile

Hans Schreier is a professor at the University of British Columbia. His research focuses on watershed management, land-water interactions, soil and water pollution and GIS. He has worked extensively in watershed studies in 14 countries in the Himalayan and Andean regions, and in Canada. In 1999 the International Development Research Centre (IDRC) recognized his contribution to international development. He was a Co-Leader for the Watershed Program of the Canadian Water Network NCE 2004-2008, and he is a member of the Water Advisory Panel for the Columbia Basin Trust. Since 1995 he also teaches 4 WEB-based graduate courses on watershed management. In 2004 he received the "Science in Action" Award from The United Nations International Year of Fresh Water, for outstanding work in making watershed management knowledge and innovative, cost-effective applications possible, and in 2008 he received the King Albert International Mountain Award for scientific accomplishment of lasting values to the world's mountains, in Switzerland.

Overview

There are two sections to these workshops. One section will focus on Urban Water Resources Management and the other on Agricultural Water Resources Management.

Increased climatic variability and increased urban densification is causing major problems with the way we manage stormwater. Business as usual will create more flooding and increasing pollution from non-point sources. Examples of adaptive approaches to deal with these issues will be highlighted.

New Zealand has some of the best soils and climatic conditions to make food production in New Zealand one of the most efficient places in the world in terms of water use. Professor Schreier has been doing research on virtual water trade (water imbedded in food destined for export). This issue is of particular concern because whilst it is great for the economy to export food the pollution created by intensive agriculture is never considered in the economic calculation of these activities.

FULL DAY AND HALF DAY WORKSHOPS AVAILABLE

A full day programme on either Urban Water or Agricultural Water is available on demand.

Dunedin is only offering a half-day session in the afternoon.

Please state preferred topic when registering.

(see below for details of each session and registration information)

Supported by MWH New Zealand



BUILDING A BETTER WORLD

Water Resources Management in New Zealand:

Morning Session on Urban Water Resources Management
Afternoon Session on Agricultural Water Resources Management

Main Theme for morning session: Water and Urbanization

1. Introduction and Global Trends in Urbanization
2. Why the need for a paradigm shift?
3. Domestic Water
 - a) Domestic Water Accounting (Comparing urban water uses)
 - b) Demand exceeding Supplies, Limited new sources
 - c) Indoor and outdoor water use, Water accounting for business and individuals
 - d) Water conservation (what are the most cost effective options)
 - e) Drinking Water Quality issues and Treatment options
 - f) Source Water Protection
 - g) Cost and use comparisons
4. Wastewater Management
 - a) Comparing Treatment Methods
 - b) Cost of different levels of treatment
 - c) Alternative options
 - d) Wastewater reuse
5. Stormwater Management
 - a) Traditional systems
 - b) Reasons for Change (increased climatic variability, increased densification)
 - c) Innovative options at the property level
 - d) Innovative options at the neighbourhood level
 - e) Innovative options at the watershed level
 - f) How to address flooding and pollution issues
6. The need for Integrating water resources management in cities
 - a) Urban watershed approaches
 - b) Benefits from cooperation between domestic, waste and stormwater management divisions
 - c) Public Education

Main theme for afternoon session: Water and Food Production

1. Introduction of Global Food Production Issues
 - a) Water, increased climatic variability and intensification- the main constraints for food production
 - b) Options, opportunities and constraints for food exporting countries

2. Water use in agriculture
 - a) Increased climatic variability
 - b) Irrigation use and efficiency
 - c) Water requirements for different crops and diets
 - d) Comparing water use for crop, meat and biofuel production
 - e) Water harvesting, storage and green water management
 - f) Effective water conservation methods

3. Water quality issues in agriculture
 - a) Eutrophication and its implications
 - b) Fertilizer Issues (N & P issues)
 - c) Manure Issues (accounting & processing)
 - d) Beneficial management practice
 - e) Nutrient Accounting
 - f) Antibiotics, trace metals and hormones
 - g) Effective source control methods

4. Innovative approaches to reduce water use and pollution in agriculture
 - a) Virtual water export through Food export
 - b) Water Footprint of Nations
 - c) Matching crops to climate (green water management)
 - d) Energy issues for food production

5. Summary: Urban- Agricultural Interaction
 - a) Competing demands for water
 - b) Cumulative effects from non-point sources of pollution
 - c) Solutions and Options

Registration / Information

Fee	<p>FULL DAY</p> <ul style="list-style-type: none">○ \$250 plus GST for Members (NZSSES, IPENZ)○ \$350 plus GST for non members <p>HALF DAY</p> <ul style="list-style-type: none">○ \$175 plus GST for Members○ \$250 plus GST for non-members○ Student rates available upon application○ Note: A 25% cancellation fee will apply to all cancellations. Cancellations made within 48 hours and non- attendance on the day will incur the full fee.
More information?	<p>Contact Vicky – 027 2305 365 Website – www.nzsses.org.nz</p>
To Register	<p>Email to vicky@nzsses.org.nz</p>