



PROGRAM ON
WATER GOVERNANCE



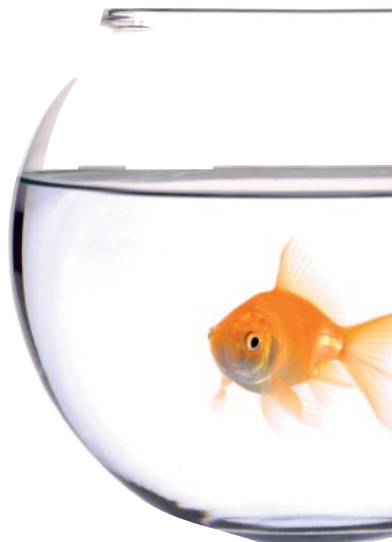
ANNUAL REPORT
2009 & 2010

Mission Statement

The Program on Water Governance (PoWG) conducts cutting-edge research and fosters dialogue on water policy with communities and decision-makers.

The Program is co-hosted by the University of British Columbia's Department of Geography, and the Institute for Resources, Environment, and Sustainability (IRES).

Dr. Karen Bakker is the Director of the Program on Water Governance, and Associate Professor in the Department of Geography. She holds a Canada Research Chair in Political Ecology and is an Associate of IRES.



Karen Bakker pictured centre. Image courtesy of Owen Eagan



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Welcome from Director

Karen Bakker

Over the past two years, a series of reports have highlighted gaps in Canada's capacity to monitor and manage fresh water. A recent report by the Senate Standing Committee on Energy, Environment, and Natural Resources termed the management of Canada's water "shocking" and "unacceptable". Other reports from the Council of Canadian Academies, the National Water Resources Institute, the FLOW Canada network, and (here at home) the BC Auditor General's office have warned that Canadians are not adequately protected from floods, water shortages, and other water-related hazards. Simply put, concerns are growing that Canada's water is not secure.

It is thus heartening to see the increased focus on water policy on the part of both provincial and federal governments. The Program on Water Governance continues to play an active role in policy reform, through advisory roles with provincial, national and international organizations, including the National Round Table on the Environment and the Economy, the United Nations Office of the High Commissioner on Human Rights, and BC's Ministry of the Environment. Over the past two years, we have also continued to expand our public outreach activities, through briefing notes, policy papers, and a renewed web presence which makes extensive water-related information resources freely available. This is an essential part of fulfilling our mandate to support informed public debate over water resources in Canada and around the world.

The Program on Water Governance has grown significantly over the past few years; we have been joined by an Associate Faculty Member (Dr Leila Harris), and a post-doctoral researcher (Dr Emma Norman). We look forward to continued growth and collaboration with researchers, policy-makers, and members of the public. Core funding from the Walter & Duncan Gordon Foundation continues to make this possible, and we are very grateful for their continued support. The Program is a collective endeavour, and I thank all of those who have made contributions over the past two years. Looking ahead to next year, we will be focusing our attention on water security and transboundary water governance issues, as well as initiating a new research program in Latin America. Visit our website for regular updates, and sign up for our newsletter--the best way to stay informed of our activities.

Water Security Project



In 2008, the Canadian Water Network (CWN) awarded the Program on Water Governance a four-year grant to lead a team of researchers from 8 Canadian universities, and 20 project partners from across Canada, on a project to improve water security in Canada.

Water Security may be defined as “sustainable access, on a watershed basis, to adequate quantities of water of acceptable quality, to ensure human and ecosystem health”

During Phase I (2008-2009), we conducted a comprehensive inventory of water indicators in Canada. We also conducted and analyzed a large-scale web-based survey of Canadian water practitioners, followed by detailed interviews with 30 water managers and policy makers. A Water Security Workshop (see page 9), which brought together more than 60 water practitioners from across Canada, provided valuable input into the development of the framework and assessment method.

During this workshop, experts from across Canada discussed and debated water assessment approaches, focusing on the role and utility of indicators.

During Phase II (2009-2010), we developed and field-tested the Water Security Status Indicators (WSSI) and Water Security Risk Indicators (WSRI) assessment methods through consultation with community and case study partners. Other research partners are also developing additional assessment tools, (such as a Boil Water Advisory Protocol), which are currently being developed and tested.

During the final Phase III (2011-2012), we will continue to refine and develop the Water Security Status Indicators (WSSI) and Water Security Risk Indicators (WSRI), along with project related tools. We will be testing the combined Water Security Assessment Framework with our case study partners (Township of Langley, BC and Grand River Conservation Authority, Ontario), and other interested communities.



Dunn, G. and Bakker K. (2009). **Canadian Approaches to Assessing Water Security: An Inventory of Indicators**. Vancouver: UBC Program on Water Governance.

‘Canadian Approaches to Assessing Water Security: An Inventory of Indicators’ documents and assesses the strength of freshwater indicators currently being used in Canada to evaluate water security, focusing on federal and provincial levels. The document introduces approaches to water security, highlights the usefulness of indicators, analyses the inventory of indicators developed along five water security dimensions, gives an overview of gaps and weaknesses in government approaches, and offers recommendations towards improving water security in Canada. (See Policy Publications)

Norman, E., K. Bakker, C. Cook, G. Dunn, and D. Allen (2010) **Water Security: A Primer**. Vancouver: UBC Program on Water Governance.

‘Water Security: A Primer’ presents a working definition of water security, explores water security in action by tying the inventory of indicators to good governance practices, and makes recommendations for improved water security through stronger governance of water systems. The Primer fulfills part of the project’s knowledge translation objective, providing an easily accessible entry-point into the water security dialogue for a wide range of stakeholders. (See Policy Publications)

For more project publications and information on the research project visit our website: <http://www.watergovernance.ca/projects/water-security/>

Policy Publications

One of the missions of the Program on Water Governance is to provide cutting-edge research to support policymakers and other stakeholders as they strive for good governance outcomes in water. The following publications further that objective, from raising awareness about the issue of water security, to elucidating key principles that support effective shared water governance.

Bakker, K. and K. Martin (2010) 'The Water Dialogues: An International Summary'. London: The Water Dialogues: Multistakeholder Dialogues on Water and the Private Sector.

Cohen, A. (2009) The Sixth Great Lake: Groundwater in the Great Lakes - St. Lawrence Basin, a report done through the Walter and Duncan Gordon Water Policy Fellowship program.

Davidson-Harden, A. and S. Spronk, D. McDonald, and Bakker, K. (2009) "Local control and management of our water commons: Stories of rising to the challenge". Ottawa, Council of Canadians and Our Water Commons.

Water Security:

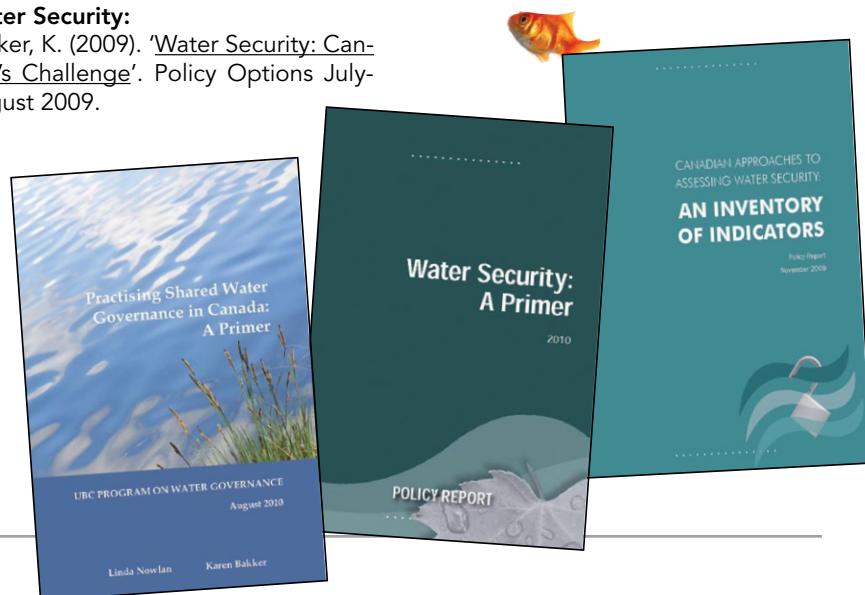
Bakker, K. (2009). 'Water Security: Canada's Challenge'. Policy Options July-August 2009.

Dunn, G. and Bakker, K (2009) Canadian Approaches to Assessing Water Security: An Inventory of Indicators. Vancouver: UBC Program on Water Governance.

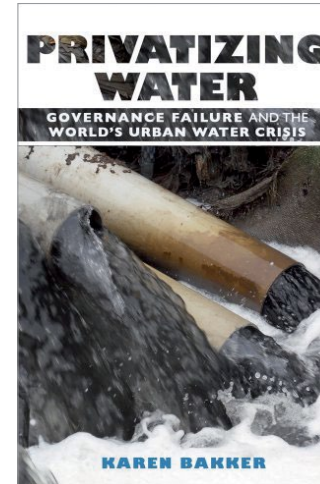
Norman, E., K. Bakker, C. Cook, G. Dunn, and D. Allen (2010) Water Security: A Primer. Vancouver: UBC Program on Water Governance.

Delegated Water Governance:

Nowlan, L. and K. Bakker (2010) Practising Shared Water Governance in Canada: A Primer. Vancouver: UBC Program on Water Governance.



Books



Bakker, Karen. (2010). **Privatizing Water: Governance Failure and the World's Urban Water Crisis**. New York: Cornell University Press.

Karen Bakker's most recent book was released by Cornell University Press in October 2010. *Privatizing Water: Governance Failure and the World's Urban Water Crisis* takes a critical look at the trend towards privatization of urban water supplies. Delving into the debate, Bakker asks three key questions:

- 'Why did privatization emerge as the preferred alternative for managing urban water supplies?'
- 'Can privatization fulfill its proponents' expectations, particularly with respect to water supply to the urban poor?'
- 'Given the apparent shortcomings of both privatization and conventional approaches to government provision, what are the alternatives?'

In addressing these questions, she engages with broader debates over private sector involvement in development, the role of urban communities in the provision of 'public services' and the governance of public goods; and introduces the concept of 'governance failure' as a means to explore the limitations facing both private and public bodies addressing the urban water crisis.

Available for purchase online:

<http://www.watergovernance.ca/projects/privatizing-water-2/>

Other publications on privatization are available on the PoWG website:

<http://www.watergovernance.ca/projects/privatizing-water-2/publications-on-privatization/>

Academic Publications

As a research organization, the Program is engaged in wider academic dialogues on water governance through publications. The following chapters and journal articles were published in 2009 and 2010. The articles address issues across our central research streams: Water Security, Water in Canada, US-Canada Transboundary Water, Water & Development, and Privatizing Water.

- 2010** Bakker, K. (2010). *Participation du secteur privé à la gestion des services des eaux: Tendances récentes et débats dans les pays en voie de développement*. *Espaces et Sociétés* 139, 91-105.
- Cohen, A., and Bakker, K. (2010). *Groundwater Governance: explaining regulatory non-compliance*. *International Journal of Water* 5(3): 246-266.
- Cohen, A. (2010). *Review of Michel, David; Pandya, Amitt (eds) .Troubled Waters: Climate Change, Hydropolitics, and Trans-boundary Resources*. Water, H-Net Reviews. February.
- Cook, C. (2010). *Review of Locke, A. et al. (editors) Integrated Approaches to Riverine Resources Stewardship*. *Canadian Water Resources Journal* 35(2): 231-232.
- Furlong, K. and K. Bakker (2010). *The contradictions of "Alternative" Service Delivery: Governance, Business Models, and Sustainability in Municipal Water Supply*. Working Paper: Manuscript submitted to *Environment and Planning C: Government and Policy* vol. 28 issue 2.
- Furlong, K. and K. Bakker (2010). *Governance and sustainability at a municipal scale: The challenge of water conservation*. Working Paper: Manuscript submitted to *Canadian Public Policy*.
- Norman, E. and K. Bakker (2010). *Governing Water across the Canada – U.S. Borderland Borders and Bridges: Navigating Canada's International Policy Relations in a North America Context* (eds.) G. Hale and M. Gattinger (eds.), Oxford University Press, 194-212.

- 2009** Bakker, K. (2009). *Commentary: Neoliberal nature, ecological fixes, and the pitfalls of comparative research*. *Environment and Planning A* 41, 1781-1787.
- Cook, C. (2009). *Review of Craik, N. The international law of environmental impact assessment: process, substance and integration*. *Environmental Politics* 18(3) 444-466.
- Norman, E. and K. Bakker (2009). *Transgressing Scales: Trans-boundary Water Governance across the Canada – U.S. Border*. *Annals of the Association of American Geographers*. Vol. 99 (1): 99 – 117.
- Norman, S. and D. Carr (2009). *World Summit on Sustainable Development in B. Warf (ed) Encyclopaedia of Geography*. London: Sage Publications.
- Carr, D. and E. Norman (2009). *United Nations. Environmental Summits in B. Warf (ed) Encyclopaedia of Geography*. London: Sage Publications.
- Lopez, A., E. Norman and D. Carr (2009). *United Nations Conference on Environment and Development, Rio 1992 in B. Warf (ed) Encyclopaedia of Geography*. London: Sage Publications.
- Norman, E. (2009). *Navigating Bordered Geographies: Water Governance along the Canada - U.S. Border*. Unpublished Dissertation, Department of Geography, University of British Columbia.



Presentations & Speaking Engagements

In June 2010, a number of team members presented at the Canadian Water Resources Association Conference in Vancouver on the Water Security project:

Cook, C. and K. Bakker. *Water Security: Emerging Debates in Policy and Academia* (Cook presented)

Norman, E.S. and K. Bakker. *Moving towards water security in Canadian Water Policy* (Norman presented)

Bakker, K. and D. Allen. *Water Security: A new framework for water governance policy* (Bakker presented).

Dunn, G. and K. Bakker. *Fresh water-related indicators in Canada: An inventory and analysis.*

Bakker, K. (2010). *Splintering urbanism? Debating the urban infrastructure question in the global South.* Urban Affairs Association annual conference, Honolulu, March.

Bakker, K. (2009). 5th World Water Forum, Istanbul, March.

Bakker, K. (2009). *Debating Water as a Human Right*, UN Office of the High Commissioner for Human Rights, Geneva (Karen Bakker).

Bakker, K. (2009). IRPP Working Lunch 'BC's Living Water Smart Policy: Is it smart for Canada?', October 2009 (Karen Bakker (panelist))

Cohen, A. (2010). *Nature's scales: Exploring the drivers and implications of watersheds as governance scales.* Scaling & Governance Conference, Wageningen, the Netherlands, November.

Cohen, A. (2010). *Why a watershed? Exploring the rationales for watershed-scale governance.* Annual meeting of the Canadian Water Resources Association, Vancouver, June.

As the results of the Water Security Project have been coming in, team members have been sharing them with the wider academic community.

Bakker, K. (2010). *Water Security: Canada's challenge.* Canadian Water: Towards a New Strategy. McGill Institute for the Study of Canada, McGill University, Montreal QC, March.

Cook, C. (2010). *The emerging paradigm of water security.* American Association of Geographers (AAG) annual conference, April, Washington, DC.

D.M. Allen, K. Bakker, M.W. Simpson, G. Dunn, E. Norman, and R. Cavalcanti de Albuquerque. 2010. *Incorporating Risk and Indicators into a Water Security Framework.* American Geophysical Union, San Francisco, CA, December 5, 2010.

Bakker, K. (2009) *Water Security: Policy dimensions of a global challenge.* Presented at the University of Saskatchewan, School of Environment and Sustainability/School of Public Policy, November.

Norman, E. RES'EAU Water-NET Workshop Aboriginal Water Health Conference, Panelist, First Nations House of Learning, Vancouver, BC. October 20 – 21, 2010.

Norman, E. (2009) *Cooperating across Borders: Managing Water across the Canada - U.S. Border.* Guest lecturer. University of Washington, Jackson School of International Studies

Summer Workshop Series for Teachers. Seattle, WA, June 25, 2009.

Bakker, K. (2009) *The ambiguity of community: Debating the governance of the commons.* Environmental Politics Colloquium, University of California-Berkeley, November.

Bakker, K. (2009) *A National Water Strategy for Canada? Workshop: BC's Living Water Smart Policy: Is it smart for Canada?* Institute for Research on Public Policy, November.

Bakker, K. (2009) *The limits to neoliberal natures.* Presented in the Yi-Fu Tuan Lecture Series, University of Wisconsin-Madison, October.

Bakker, K. (2009) *Neoliberalizing Nature.* Presented at the Antipode Summer Institute. University of Manchester, School of Environment and Development, May.

Karen Bakker speaking on Water Security: Canada's challenge. Canadian Water: Towards a New Strategy. McGill University, Montreal QC. Image courtesy of Owen Egan



Workshops

Outreach is a critical part of our mission; in accordance with this the PoWG team works to disseminate our research results, and raise awareness of water governance issues in Canada through workshops, events and various public speaking engagements.

September 28th and 29th, 2009 – Water Security in Canada. In September 2009, the Program on Water Governance hosted a two-day workshop on water security at UBC. This workshop brought together the research team, project partners along with potential end-users together (including water professionals, policy makers and water managers) who worked through issues raised in the Water Security Primer and other components of the research project.

Day 1: Monday 28th September – Researchers Workshop: The first workshop was a smaller meeting (20 people), with only the research team members (researchers and students) present. Throughout the day each of the research team members presented their research plans, followed by brainstorming on key issues.

Day 2: Tuesday 29th September – Research team plus project partners, case study partners and end-users: This

larger workshop (60 people), brought together the water security project partners, water professionals, policy makers and end-users to engage in knowledge translation; a two-way flow of knowledge between participants and the research team. We solicited input on project deliverables such as the Water Security Primer, the Indicator Inventory and our Water Security Framework. The participants included:

The research team (including researchers from 7 partner universities across Canada)

Project partners (including Environment Canada, NRCan, Health Canada and the case study partners)

Potential end-users (including municipalities, policy makers, NGOs, and community groups, etc.)



Images from the Water Security 2009 Workshop. Images courtesy of Albert Teng.



In 2010, the PoWG team attended a number of conferences:

CSIN Conference 'Accountability through Measurement', Toronto, March 2010 (Gemma Dunn)

CWN Researcher Retreat, Toronto, June 2010 (Christina Cook & Gemma Dunn)

BC MoE Water Act Modernization Workshop, Vancouver, April 2010 (Gemma Dunn)

CWRA Annual Conference, Vancouver, June 2010 (Presenters & Jacquie Belzile)

CFCAS Water Security Conference, Ottawa, May 2010 (Christina Cook)

CWN International Networking Workshop & IWA Conference, Montreal, September 2010 (Jacquie Belzile)

Source Water Protection Workshop, Guelph, May 2010 (Christina Cook)

Scaling and Governance Conference, Netherlands, November (Alice Cohen)



World Water Day Public Lecture

22 March 2010, UBC Robson Square
UN World Water Day (March 22nd) aims to draw attention to global water issues. In response, the Program on Water Governance collaborated with a number of local and international organizations, to host an evening event in Vancouver. The focus of the panel event was *Water: Challenges and Opportunities in Western Canada and abroad*, and was attended by over 120 people.

The opening guest speaker was Canadian author **Andrew Nikiforuk** (*Tar Sands: Dirty Oil and the Future of a Continent*). Nikiforuk discussed the water energy nexus focusing on three areas: the impact of the tar sands on water, the Enbridge (Gateway) pipeline project, and hydrofracturing (a water-intensive process that is used to release shale gas). Nikiforuk was joined by two more panelists: **Chief Bob Chamberlin**, chair of the Musgamagw-Tsawataineuk Tribal Council, and **Patrick Lucas**, an environmental scientist and returned CUSO-VSO volunteer. The panel was moderated by Dr. Karen Bakker, director of the UBC Program on Water Governance (and author of *Eau Canada: The Future of Canada's Water*).



Andrew Nikiforuk. Image courtesy of Doreen Docherty

A six part video recording of Andrew Nikiforuk's presentation at this event is available at: <http://www.watergovernance.ca/431/world-water-day-march-22-2010/>

The event was sponsored by: Connecting Environmental Professionals, Tides Canada, Amnesty International, Program on Water Governance (UBC), Council of Canadians, Oxfam Canada, The Water Team, the Sauder School of Business (UBC) and Bullfrog Power.



Ongoing advisory roles

Karen Bakker

- Acted as an advisor to the Water Dialogues, an international multistakeholder dialogue, coordinated through the United Kingdom, examining issues of private sector participation in water supply. (www.waterdialogues.com)
- Acted as advisor to McGill University's Institute for the Study of Canada on a planned national water conference.
- Acted as advisor to the Organisation for Economic Co-operation and Development (OECD) on water governance issues.
- Participated in the Expert Consultation on Water as a Human Right for the UN-Office of the High Commission.

Alice Cohen

Acts as a contributor to the Living Water Policy Project - a project leading up to the development of a 'live' website that improve the reliability and accessibility of water data in Canada's provinces, territories, and federal government, and will serve as a database for decision-makers across the country. Available online at: <http://www.waterpolicy.ca/>

Gemma Dunn

- Provided advice on fresh-water indicators to National Round Table on the Environment and the Economy and to the Office of the Auditor General of BC.
- National Round Table on the Environment and the Economy: Water Use Round Table (2010 – ongoing) – Federal
- Environment Canada: Water Availability Indicator (WAI) Interdepartmental Working Group (2010 – ongoing) – Federal
- BC Ministry of Environment: Expert Advisory Group on Indicators (2008 – 2009) – Provincial



Research Team



Dr. Karen Bakker is the Director of the Program on Water Governance and an Associate Professor in the Department of Geography. Dr. Bakker is also an Associate of UBC's Institute for Resources, Environment, and Sustainability (IRES). In 2010 she was appointed Canada Research Chair in political ecology. Her most recent book addresses the issue of privatization of urban water supplies, and introduces the notion of 'governance failure' to explore the limitations faced by both private companies and governments in this arena (*Privatizing Water: Governance Failure and the World's Urban Water Crisis*, Cornell University Press, 2010).



Jacquie Belzile is a Masters student in the Resource Management and Environmental Studies program at IRES. Her research focuses on opportunities for strategic learning about water reform and drought adaptation between Australia and Canada's Okanagan region.



Hana Boye recently completed a degree in common and civil law at McGill University. To focus on environmental law and resource management, she studied at the Vermont Law School, and at IRES. Her primary interest in water relates to reducing contamination and improving human and ecosystem health. Hana is currently articling in Vancouver, B.C. at an aboriginal law firm.



Alice Cohen is a doctoral candidate in the Resource Management and Environmental Studies program at IRES. Her current research focuses on the drivers and implications of watershed-scale governance models in Canada, as well as on Canada-US transboundary water politics.



Christina Cook is a doctoral candidate in the Resource Management and Environmental Studies program at IRES. Her doctoral research examines jurisdictional fragmentation in Ontario water governance across scales and among institutions. She also researches the concept of water security.



Gemma Dunn is a research associate and policy outreach coordinator for the UBC-led project on water security. Her research focuses on water security, indicators, and data availability.



Emma Norman is a post-doctorate research fellow with the Program on Water Governance working on water security issues. Her research investigates the rescaling of environmental governance within a borderland area, focusing on transboundary water resources along the Canada-US border.

Welcome to our new member



Leila Harris is an Associate Professor with the Institute for Resources, Environment, and Sustainability (IRES) and the Centre for Women's and Gender Studies (CWAGS). Her current research focuses on the intersection of environmental issues and inequality/social difference, water governance, and water politics and conflict.

Coming Soon

The Program on Water Governance is hosting 3 sessions at the AAG annual meeting on Thursday April 14th 2011 in Seattle, WA, on the topic of: Water governance and the politics of scale: A critical examination of water governance in a multi-scalar environment.

New book: "Water without borders"

Coming 2012

Norman, Emma S., Alice Cohen, Karen Bakker, eds. Forthcoming 2012.
Water without Borders? Canada, the U.S. and Transboundary Waters.
University of Toronto Press.

Book Description

Water without Borders? explores changes in water governance along the Canada-U.S. border. Despite the relatively peaceful history of the Canada-U.S. border, "hot spots" continue to remind us of the importance of cultivating relationships and (re)creating good governance mechanisms.

In Water without Borders? we bring together the world's foremost experts on Canada-U.S. transboundary water issues. Drawing on expert knowledge from on both sides of the border, we present a balanced view of the changing water relationship between Canada and the United States. This book details the changing fabric of the Canada-U.S. relationship, analyzes key freshwater hot spots along the border, and looks forward in assessing the role of new transboundary mechanisms designed to manage water wisely.



Thank You to our Funders



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