

WATER SECURITY GUIDANCE DOCUMENT

WATER SECURITY GUIDANCE DOCUMENT APPENDIX B PROJECT RELATED PUBLICATIONS

APPENDIX B - PROJECT RELATED PUBLICATIONS

SUMMARY OF CWN FUNDED WATER SECURITY PROJECT RELATED PUBLICATIONS (2008-2012)

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JOURNAL ARTICLES

Asnaarhi, A., McBean, E., Gharabaghi, B., and Tutt, A. (in press).

Forecasting watermain failure using artificial neural network modeling.

Canadian Water Resources Journal, accepted Jun 24 2011.

Bakker, K. and Cook, C. (2011). ***Water governance in Canada: Innovation in the context of fragmentation.*** International Journal of Water Resources Development, 27(2): 275-289.

Cook, C., and Bakker, K. (2011). ***Water Security: Debating an emerging paradigm.*** Global Environmental Change, 22(1): 94-102. <http://dx.doi.org/10.1016/j.gloenvcha.2011.10.011>

Dunn, G. and Bakker, K. (2011). ***Fresh water-related indicators in Canada: An inventory and analysis.*** Canadian Water Resources Journal, 36(2): 135-148

Gleeson, T., Alley, W.M., Allen, D. M., Sophocleous, M.A., Zhou, Y., Taniguchi, M. and VanderSteen, J. (2012). ***Towards sustainable groundwater use: Setting long-term goals, backcasting, and managing adaptively.*** Ground Water, 50(1): 19-26. doi: 10.1111/j.1745-6584.2011.00825.x <http://onlinelibrary.wiley.com/doi/10.1111/j.1745-6584.2011.00825.x/full>

Gleeson, T., VanderSteen, J., Sophocleous, M.A., Taniguchi, M., Alley, W.M., Allen, D.M., Zhou, Y. and Bruner, P. (2010). ***Groundwater sustainability strategies.*** Nature Geoscience, 3(6): 378-379.

Liggett, J.E. and Allen, D.M. (2011). ***Evaluating DRASTIC using different data sources, interpretations and mapping approaches in areas of limited geological variability.*** Environmental Earth Sciences Volume 62, Number 8:1577-1595.

Norman, E. S., K. Bakker, G. Dunn. (2011). ***Recent developments in Canadian water policy: An emerging water security paradigm.*** Canadian Water Resources Journal, 36(1): 53-66.

Ostry, A., Ogborn, M., Bassil, K. L., Takaro, T., and Allen, D. M. (2010). ***Climate change and health in British Columbia: Projected impacts and a proposed agenda for adaptation research and policy.*** International Journal of Environmental Research and Public Health 7(3):1018-1035. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872312/>

Perdikaris, J., Gharabaghi, B., and McBean, E. (2011). ***A methodology for undertaking vulnerability assessments of flood susceptible communities.*** International Journal of Safety and Security Engineering, 1(2): 126-146.

Simpson, M.W. Allen, D.M. Journeay, M. M. Korteling B. (2011). ***Assessing risk to groundwater quality using an integrated risk framework.*** In Proceedings of GeoHydro 2011 Conference, Quebec City, Quebec, August 28-September 1, 2011.

Summerscales, I., and McBean, E., (in press). ***Application of risk assessment tools to small drinking water systems in British Columbia: A case study.*** Water Quality Research Journal of Canada, accepted Sep 2011.

Summerscales, I., and McBean, E. (2011). ***Incorporation of the multiple barrier approach in drinking water risk assessment tools.*** Journal of Water and Health, 09(2):349-360.

Summerscales, I., and McBean, E. (2010). ***Evaluation of risk assessment tools to predict Canadian waterborne disease outbreaks.*** Water Quality Research Journal of Canada, 45 (1):1-11.

Teschke, K., Bellack, N., Shen, H., Atwater, J., Chu, R., Koehoorn, M., MacNab, Y.C., Schreier, H., and Isaac-Renton, J.L. (2010). ***Water and sewage systems, socio-demographics, and duration of residence associated with endemic intestinal infectious diseases: A cohort study.*** BMC Public Health 2010, 10:767
<http://www.biomedcentral.com/1471-2458/10/767>

Vasiljevic, B., McBean, E., and Gharabaghi, B., (in press). ***Trends in rainfall intensity for stormwater designs in Ontario.*** Journal of Water and Climate Change, accepted 2011.

JOURNAL ARTICLES IN REVIEW

Cavalanti de Albuquerque, R., Allen, D.M. and Kirste, D. (in review). ***A Methodology for spatially representing the likelihood of occurrence of natural contaminants in groundwater.*** Submitted to Environmental Earth Sciences (September 2011).

Dunn, Gemma and Karen Bakker (in review). Comparative assessment of Canadian drinking water quality guidelines across Canadian provinces and territories: The challenge of place-based variation in the context of decentralized water governance. Submitted to Health and Place (January 2012).

Norman, E., Dunn, G., Bakker, K., Allen, D.M., and Cavalcanti de Albuquerque, R. ***Integrating Governance in Water Indicator Assessment: Developing a Water Security Indicator Method.*** Submitted to Water Resource Management (August 2011).

Simpson, M.W. Allen, D.M. (in review) ***A Groundwater Quality Risk Assessment Framework.*** Submitted to Water Resource Management (September 2011).

POLICY REPORTS

Norman, E., Dunn, G., Bakker, K., Allen, D., Cavalcanti de Albuquerque, R., Simpson, M., and Cook, C. (2011). ***Water Security Briefing Note*** Submitted by Simon Fraser University and Program on Water Governance-UBC to BC Ministry of Environment.

<http://www.watergovernance.ca/wp-content/uploads/2010/04/WSAF-Briefing-Note-FINAL-25Feb2011.pdf>

Norman, E., with Bakker, K., Cook, C., Dunn, G. and Diana Allen (March 2010). **Water Security: A Primer** (Policy Report). Vancouver, BC: UBC Program on Water Governance. (Note: This document represents the first formulation of our Water Security Assessment Framework, which has since been refined and updated).

<http://www.watergovernance.ca/wp-content/uploads/2010/04/WaterSecurityPrimer20101.pdf>

Version française: **La sécurité hydrique: Guide d'introduction**

<http://www.watergovernance.ca/wp-content/uploads/2010/05/Water-Security-Primer-FRENCH.pdf>

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

<http://www.watergovernance.ca/PDF/IndicatorsReportFINAL2009.pdf>

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

<http://www.irpp.org/po/archive/jul09/bakker.pdf>

CONFERENCE AND WORKSHOP PRESENTATIONS

Cook, C. (oral presentation on behalf of project team) (2012). **Approaching Water Security from a Risk Perspective**. Water Security, Risk and Society: International Water Security Conference, Oxford University, UK, 16-18 April 2012.

American Association for the Advancement of Science – Annual Meeting: Vancouver, February 2012:

Friday February 17, 2012 (afternoon panel session)

Topic: **Links and trade-offs between water, energy and food security**

Speakers: Howard Wheeler (USask), Patricia Gober (Arizona State U), Gordon Young (former UN WWAP coordinator), Dennis Lettenmaier (U of Washington), Peter Gleick (Pacific Institute), and Karen Bakker (UBC)
 Moderator: Diana Allen (SFU)

Friday February 17, 2012 (evening event open to the public)

Topic: **Water Security in Canada**

Speakers: Howard Wheeler, Gordon Young, Tom Pedersen (UVic), Judy Isaac-Renton (BC Centre for Disease Control)

Moderator: Karen Bakker

Sponsors: AAAS, University of British Columbia, the Royal Society of Canada (RSC) and the Canadian Water Network (CWN)

Allen, D.M., Bakker, K., Dunn, G., Norman, E., Simpson, M., and Cavalcanti de Albuquerque, R. (oral presentation) (2011). **A Water Security Framework for community-level assessment**. Canadian Water Resources Association

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PROJECT RELATED PUBLICATIONS

64th Annual Conference, St. John's NFLD, June 28-31, 2011.

Allen, D.M. (on behalf of project team) (2011). **Water Security Assessment at a Community Level**. Canadian Water Network Project Leaders Meeting, Toronto, Ontario, May 19-20, 2011.

Allen, D.M. (on behalf of project team) 2010. **Developing A Canadian Water Security Framework as a Tool for Assessing Cumulative Impacts and Improving Watershed Governance**. CWN Project (Dube), Saskatoon.

Allen, D.M., Bakker, K., Simpson, M.W., Dunn, G. and Norman, E. (2010). **Incorporating risk and indicators into a Water Security Framework**. American Geophysical Union Annual Meeting, San Francisco, CA, December 2010.

Allen, D.M. (on behalf of project team) (2010). **Developing a Canadian Water Security Framework as a tool for assessing cumulative impacts and improving watershed governance**. CWN Project Meeting (M. Dubé), Saskatoon, SK, October 2010.

Asnaashari, A., McBean, E., Gharabaghi, B. and Tutt, A. (2010). **Asset rehabilitation planning using neural network models**. Water 2010, Quebec City, July 2010.

Asnaashari, A., Gharabaghi, B., Bradford, A., McBean, E., and Whiteley, H. (2009). **Jurisdictional review of stormwater management in light of climate change impacts on water quality**. Presented at New Directions '09 in Stormwater Management, Vaughan, Ontario November 30-December 2, 2009.

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

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 2009.

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 2009.

Banting, C., and McBean, E. (2011). **Application of risk model to below water table aggregate mining extraction site in Guelph**. Presented at Canadian Water Network National Conference, Ottawa, Ontario, Feb 28-Mar 3, 2011.

Canadian Water Resources Association – Annual Conference: Vancouver, June 2010:

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** (poster presentation).

<http://www.watergovernance.ca/wp-content/uploads/2010/03/GD-CWRA-Indicator-Poster-FINAL.pdf>

Simpson, M.W., Allen, D.M., Journeay, M.M. and Korteling, B. 2010. **Assessing risk to groundwater quality: a proposed integrated groundwater risk framework.** (Simpson presented)

Cavalanti de Albuquerque, R., Kirste, D. and Allen, D.M. (2010). **Indicators of arsenic contamination for groundwater risk analysis.** (Cavalcanti de Albuquerque presented).

Cavalcanti de Albuquerque, R., Kirste, D., and Allen, D.M. (2010). **Arsenic mobilization in confined aquifers formed in glaciomarine deposits.** Water Rock Interaction conference, August 16-20, 2010, Guanajuato, Mexico.

Cook, C. and Bakker, K. (2011). **Water Security: Competing perspectives across the natural and social sciences.** University of East Anglia Water Security Workshop, London, UK, November 4, 2011. (Cook presented)

Cook, C. and Bakker, K. (2010). **Water Security: emerging debates in academia and policy.** Annual Meeting of the Association of American Geographers, Washington, April 13-18, 2010. (Cook presented)

Farrow, C., McBean, E., and Salsali, H. (2011). **Viral contamination and attenuation in fractured bedrock groundwater aquifers.** Presented at 25th Canadian Association for Water Quality, Burlington, Ontario, Feb 22-23, 2011.

McBean, E. (2011). **Vulnerability assessment procedures for small water supply systems, in present conditions and under climate changing conditions.** Plenary Presentation, International Conference on Drinking Water Safety, Security and Sustainability, to be presented, Hangzhou, China, Oct 9-12, 2011.

McBean, E. (2011). **Managing security for water distribution systems.** Keynote paper, International Waterworks Symposium, Seoul, Korea, Sept 2011.

McBean, E. (2011). **Water, the ultimate recycled good.** Keynote presentation at International Conference on Water and Wastewater with Focus on Privatization and Benchmarking, Tehran, Iran, April 27-28, 2011.

McBean, E., and Lagos, G., (2010). **The emerging focus on pharmaceuticals in water.** Enviropharm 2010, Toronto, Ontario, October 7, 2010.

McBean, E., (2010). **Drinking water security at small systems in Canada.** Presented at Consensus Conference on Small Water Systems, Management for the Promotion of Indigenous Health, University of Victoria, Victoria, B.C., March 21-23, 2010.

McBean, E., (2010). **Trends in climate in Canada - past and future characteristics.** Presented at Stressors, Habitat, and Biology in Agricultural Streams, Utopia, Ontario, February 17, 2010.

Norman, E., Dunn, G., Bakker, K., Allen, D.M., Simpson, M., and Cavalcanti de Albuquerque, R. (2011). **Water Security Assessment and Community Governance.** Presented at CWN Connecting Water Resources 2011: Responding to the Opportunities, Ottawa, February 28th -March 3rd 2011.

Norman, E., Dunn, G., Bakker, K., Allen, D.M., Simpson, M., and Cavalcanti de Albuquerque, R. (oral presentation and poster) (2011). **Integrating Governance in Water Indicator Assessment: Developing a Water Security Indicator Method** (poster). Poster presented at CWN Connecting Water Resources 2011: Responding to the Opportunities, Ottawa, February 28th -March 3rd 2011. <http://www.watergovernance.ca/wp-content/uploads/2011/03/CWN-Poster-FINAL-Updated-16March2011.pdf>

Simpson, M.W., Allen, D.M., Journeay, M. M. and Korteling, B. (oral presentation Allen) (2011). **Assessing Risk to Groundwater Quality Using an Integrated Risk Framework.** GeoHydro 2011, Joint Conference of the Canadian Quaternary Association (CANQUA) and the Canadian Chapter of the International Association of Hydrogeologists (IAH-CNC). Quebec City, Quebec, August 28-31, 2011.

Project Workshop (2009). **Water Security: An emerging Paradigm.** Lui Institute, University of British Columbia, BC, September 28-29, 2009.

ADVISORY ROLES

- National Round Table on the Environment and the Economy: Water Use Information Round Table
- National Round Table on the Environment and the Economy: Governance
- Canadian Council of Ministers of the Environment
- Environment Canada – Water Availability Index Interdepartmental Working Group
- BC Ministry of Environment: Water (Sustainability) Act Revisions
- BC Ministry of Environment: Expert Advisory Group on Indicators
- Honourable James A. Richardson Round Table
- Canadian Water Resources Association (CWRA) – Canada-wide Strategy Meeting