

WATER SECURITY GUIDANCE DOCUMENT

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APPENDIX A – PROJECT OVERVIEW

The Water Security Guidance Document is the final product of a four-year (2008–2012) research project “*Developing a Canadian Water Security Framework as a Tool for Improved Governance for Watersheds*”. Led by Dr. Karen Bakker (UBC), and Dr. Diana Allen (SFU), a team of researchers from 7 Canadian universities, and 20 project partners from across Canada, collaborated on a project to improve water security in Canada. The multi-disciplinary research team comprised experts from the natural sciences (biology, hydrology, ecology); social sciences (geography and law); engineering (civil); and healthcare (microbiology and public health).

- Dr. Karen Bakker (University of British Columbia)
- Dr. Diana Allen (Simon Fraser University)
- Dr. Ed McBean (University of Guelph)
- Dr. Kay Teshcke (University of British Columbia)
- Dr. Monique Dubé (University of Saskatchewan)
- Dr. Judy Issac-Renton (BC Centre for Disease Control)
- Dr. Graham Daborn (Acadia University)
- Dr. Rob de Loë (University of Waterloo)
- Dr. Murray Journeay (Natural Resources Canada)
- Oliver Brandes (POLIS, University of Victoria)

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- Environment Canada
- Natural Resources Canada
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- BC Ministry of the Environment
- Policy Research Initiative
- Health Canada
- Township of Langley

- Grand River Conservation Authority
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- Dept. of Earth Sciences at SFU
- Natural Sciences and Engineering Research Council (NSERC)
- Okanagan Basin Water Board
- Program on Water Governance, UBC
- SmartGrowth BC
- Polis Project at University of Victoria
- BC Ministry of Agriculture
- Guelph, Waterworks Department
- Brantford
- Clearbrook Waterworks District
- GW Solutions
- Canadian Water Network

The overall objective of the project was to create a Water Security Assessment Framework (WSAF) to improve water security in Canada, by improving governance for source protection and land use. The WSAF is a ‘toolkit’ comprised of decision-support tools, which consider aquatic ecosystem health, human health (including water quality and quantity) and governance capacity. It has been developed for communities to use for evaluating the current risk to water security and identifying what actions should be taken to reduce risks to water security. It differs from other similar frameworks in its:

1. comprehensiveness and integration (e.g., incorporation of governance variables);
2. sensitivity to spatial variation (in some tools); and
3. inclusion of decision-support tools.

The WSAF was developed and tested in two case study communities, the Grand River Conservation Authority, Ontario and the Township of Langley, British Columbia. Consultation with water professionals formed an integral part of the project and included:

- I. 2008 Water Security Survey: a large-scale web-based survey of Canadian water practitioners
- II. 2009 Water Security Interviews: following the survey the team conducted in-depth interviews with 30 water managers and policy makers.
- III. 2009 Water Security End-user Workshop: 60 practitioners from across Canada participated in a 1-day workshop. During the workshop experts debated water assessment approaches, providing useful insight into water security issues. The development of the water security assessment framework was discussed in-depth.
- IV. 2010-2011 Water Security Tools Development: Working with community and case study partners, various components of the water security assessment framework were refined and tested.

The team has made knowledge translation a key priority to ensure that the research benefits water managers, policy makers and community watershed groups. We have introduced the concept of water security to a broad public audience through the publication of *Water Security: A Primer (2010)* and *Water Security Briefing Note (2011)*, culminating with this final document, the *Water Security Guidance Document*, published in 2012. For a complete list of the project-related publications please refer to Appendix B.



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Ministry of Environment

