

Preface

The GQ10 conference theme was *Groundwater Quality Management in a Rapidly Changing World*, and focused on the need to manage, sustain, repair and protect groundwater quality under rapidly changing climatic and global conditions. We aimed to build a bridge between contaminant hydro(geo)logy to other scientific disciplines and to society. Groundwater is a vital resource and a conveyor belt for dissolved and particulate matter. It is a crucial component of local, regional and global water cycles, and the quality of groundwater is inextricably linked with global environmental and social viability.

The conference brought together researchers, regulators, contractors, consultants, planners and water supply agencies to address the important issues related to groundwater quality. We addressed a wide range of groundwater issues including:

- Groundwater quality under conditions of global / climate change
- Processes at groundwater–surface water interfaces
- Biogeochemical interactions
- Groundwater ecosystems
- Urban hydrogeology
- Emerging chemicals of concern
- Geogenic contaminants including radio isotopes
- Non-aqueous phase liquids (LNAPLs and DNAPLs)
- Groundwater at complex contaminated mega-sites
- Contaminant dynamics in karst systems
- Natural attenuation
- Innovative clean-up technologies
- Protecting and managing groundwater quality
- Policy and controls on groundwater quality
- Vadose zone processes
- Salinization of groundwater resources
- Groundwater scarcity
- Groundwater quality issues in aquifer storage and water re-use

We experienced socially and technically stimulating discussions. With the GQ10 conference, we truly hope that we were able to move groundwater science forward and could further combine our continuing efforts for the benefit of human kind.

GQ10 was the seventh in an international series of conferences, held under the aegis of the International Association of Hydrological Sciences (IAHS), which is organized every three years. The last two conferences took place in Waterloo (Canada) in 2004 and Fremantle (Australia) in 2007. With GQ10, hosted by Eawag in Zurich, Switzerland, 13–18 June 2010, the series returned to Europe.

The research papers presented at GQ10 by leading scientists and water professionals from around the world formed a valuable summary of the state of knowledge in these areas. The present publication consists of 115 selected and peer-reviewed papers from GQ10. They include both oral and poster papers presented at GQ10. They were selected for publication by the GQ10 Editorial Board and Scientific Committee from over 270 abstracts submitted from 37 countries.

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The editors wish to thank all conference authors and reviewers for their cooperation during the compilation of this book. We especially thank Samuel Diem, Sabrina Bahnmueller and Matthias Rudolf von Rohr (all Eawag) for putting together all conference papers before GQ10 started. We very much appreciate their enthusiasm and support.

The conference was organised by the Conference Committee:

- Mario Schirmer, Eawag, University of Neuchâtel (Chairman)
- Eduard Hoehn, Eawag (Co-Chairman)
- Tobias Vogt, Eawag
- Peter Huggenberger, University of Basel
- Daniel Hunkeler, University of Neuchâtel
- Wolfgang Kinzelbach, ETH Zurich
- Ronald Kozel, Swiss Federal Office for the Environment
- Fritz Stauffer, ETH Zurich

The conference organisers gratefully acknowledge the support of the following sponsors:

- Eawag, Swiss Federal Institute of Aquatic Science and Technology
- Swiss National Science Foundation
- Swiss Federal Office for the Environment (BAFU)
- STS Sensors Ltd.
- ÅF-Colenco Ltd.
- Swiss Cooperative for the Disposal of Radioactive Waste, NAGRA
- Intera Inc.
- Swiss Association of Geologists, CHGeol
- Simultec AG
- Roche
- Innovative Messtechnik Weiss
- Bachema AG
- Swiss Association for the Gas and Water Industry, SVGW
- Solexperts Ltd.
- Stump Foratec Ltd.
- Malcolm Pirnie

They also thank the members of the International Scientific Committee:

- Mike Annable, University of Florida (USA)
- Jim Barker, University of Waterloo (Canada)
- Barbara Bekins, United States Geological Survey (USA)
- Poul Bjerg, Technical University of Denmark (Denmark)
- Greg Davis, CSIRO Land and Water (Australia)
- Georgia Destouni, University of Stockholm (Sweden)
- Peter Grathwohl, University of Tübingen (Germany)
- Mary Hill, United States Geological Survey (USA)
- Colin Johnston, CSIRO Land and Water (Australia)
- David Lerner, University of Sheffield (UK)
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- Mike Rivett, University of Birmingham (UK)
- Ed Sudicky, University of Waterloo (Canada)
- Mike Trefry, CSIRO Land and Water (Australia)
- Yanxin Wang, China University of Geosciences (China)
- Chunmiao Zheng, University of Alabama (USA)