

## Special Issue

# Water Balance Changes in Regional Aquifer System Due to Coal Seam Gas Development

### Message from the Guest Editors

The exploitation of Coal Seam Gas (CSG) will affect the water balance of the regional aquifer system. We invite scholars to engage in a discussion on the following topic and submit your research findings to our special issue:

Occurrence Relationship and Co-production Mechanism of Coal Seam Gas and Coal Measures Groundwater;

Quantifying Groundwater Depletion and Aquifer Drawdown from CSG Dewatering;

Inter-aquifer Connectivity and Cross-formational Water Flow Induced by CSG Operations;

Impacts of Hydraulic Fracturing on Aquifer Water Budget and Flow Paths;

Source Identification and Tracing of CSG-Produced Water and Coal Mine Water;

Long-term Aquifer Recovery and Water Level Rebound Post CSG and Coal Development;

Integration of Numerical Modeling and Field Monitoring for Water Balance Prediction in CSG and Coal Zones;

Water Quality Evolution and Geochemical Alterations in Aquifers Adjacent to CSG and Coal Zones;

Sustainable Produced Water Management Strategies and Aquifer Protection during Coal and Gas Co-mining;

Mechanisms and Prevention Strategies of Water Hazards in Coal Mining Areas.

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### Guest Editors

Dr. Chen Guo

Dr. Reza Taherdangkoo

Dr. Zheng Zhang

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### Deadline for manuscript submissions

31 July 2026



## Water

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*Water*

Editorial Office

MDPI, Grosspeteranlage 5

4052 Basel, Switzerland

Tel: +41 61 683 77 34

[water@mdpi.com](mailto:water@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)

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### Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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### Editor-in-Chief

Dr. Jean-Luc PROBST

Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

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