

## Special Issue

# Exploring the Interplay of Water Quality and Groundwater Hydrology

### Message from the Guest Editors

Groundwater is vital for human and ecological systems, supplying ~50% of drinking water and over 40% of irrigation. This Special Issue addresses the critical link between groundwater hydrology and water quality, emphasizing the need for integrated approaches.

Groundwater flow affects contaminant transport, while biogeochemical processes alter aquifer properties—highlighting their complex, two-way interactions. Topics include spatial-temporal flow variations, impacts of geological heterogeneity, climate change, and human activities such as agriculture and urbanization. Interface zones like hyporheic areas and fresh–saline transitions are key biogeochemical hotspots. Advanced tools—multitracers, coupled models, remote sensing, and in situ sensors—are improving our understanding and prediction of these systems. The issue promotes translating scientific insight into adaptive management and policy, featuring studies on remediation, protection, and regulation. By fostering interdisciplinary research, this collection aims to address global challenges: safe water access, food security, ecosystem preservation, and climate adaptation.

---

### Guest Editors

Dr. Salah Ouhamdouch

Université Côte d'Azur, CNRS, OCA, IRD, GEOAZUR, 06000 Nice, France

Dr. Eleni Vasileiou

School of Mining and Metallurgical Engineering, National Technical University of Athens (NTUA), Athens, Greece

---

### Deadline for manuscript submissions

17 June 2026



## Sustainability

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 7.7



[mdpi.com/si/238426](https://mdpi.com/si/238426)

*Sustainability*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)

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





## Sustainability

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 7.7



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



# About the Journal

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

---

## Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,  
Columbus, OH 43210, USA

---

## Author Benefits

### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

### High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

### Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1  
(Geography, Planning and Development)