

Editorial: Building on the legacy of *Water Resources Research*

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[1] For 45 years, the ideas from the pages of *Water Resources Research* (WRR) have been pivotal in the advancement of the science and management of water resources. During this period, hydrologic science has become increasingly multidisciplinary and interdisciplinary. The hydrologic cycle is now conceptualized as the circulatory system of our planet, coupling both abiotic and biotic pathways of flow that transport dissolved and suspended constituents. Humans are now recognized as active agents of change in the hydrologic cycle. Water constraints on energy development, biofuels production, and carbon sequestration are emerging areas of concern. Climate change is increasingly recognized as inducing change in the hydrologic cycle, water supply, crop production, and human health. The integration of science, policy, and management to achieve sustainable development remains a critical challenge.

[2] We are honored to build upon the outstanding achievements of the outgoing team consisting of Editor-in-Chief Marc Parlange of the Ecole Polytechnique Fédérale de Lausanne; Brian Berkowitz of the Weizmann Institute of Science; Amilcare Porporato of Duke University; Scott Tyler of the University of Nevada, Reno; and Thomas Torgersen of the University of Connecticut (who will also serve as an editor on the new team). The practices that were established by this team will be continued (see *Parlange et al.* [2005] for details). We will maintain the strong partnership between the editors and associate editors and will continue to seek three reviews to provide substantial and thoughtful feedback to authors. As a team, the goal of the editors and associate editors is to assess the reviews and to provide structured and constructive guidance to the authors. We are committed to timely publication and will strive to further the recent progress in this area. To achieve this objective requires the dedication of the entire WRR community, including the reviewers and authors.

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[3] WRR will continue to publish cutting edge articles in all the traditional areas for which WRR has come to be recognized as the flagship journal. These include, but are not limited to, hydrometeorology, hydroclimatology, ecohydrology, land-atmosphere interaction, surface and subsurface storage and transport, watershed dynamics, snow and snowmelt, lakes, erosion and sediment dynamics, river processes and transport, geomorphology, biogeochemical processes and transport, extreme events, paleohydrology, climate impacts on hydrology and health, and water resource economics and management.

[4] WRR remains committed to addressing the full scope of the role and function of water in the Earth's environment. The interaction of the water cycle and its components across interfaces, disciplines, and scales continues to pose challenges. We welcome articles addressing this coupling and complexity of the hydrologic cycle, the mass and energy transport it facilitates, and the interactions of both natural and anthropogenic processes. To foster understanding of these highly nonlinear interactions as they impact the sustainable management of our water resources, WRR will continue to publish new approaches for measurement, data integration, modeling, and prediction and will regard geophysical measurement, sensing, and hydrologic information science as integral elements for advancing its mission. WRR also wishes to expand the analysis and methods by which scientific knowledge of water resources is utilized and implemented as part of the coupled roles of economics, policy, law, and societal decision making.

[5] WRR is committed to publishing excellence across a spectrum of original papers that contribute significant knowledge to the ever expanding scope of water in the environment. WRR will continue to publish within the categories of Articles, Opinions, Technical Notes, Rapid Communications, and Comment and Reply. We welcome proposals to publish special sections on emerging areas that have the potential to set the stage for further innovation. We will identify Review Articles as a separate category. We see great value in reviews, which present a synthetic assessment of the state of the art in a given subject area, providing a benchmark for scientists within the field and a point of entry for students and scientists new to the subject.

[6] Within the excellent articles published in WRR, some stand out as major contributions in advancing hydrologic science. With the guidance of the reviewers and associate editors, the editors will identify about 5% of the accepted articles to be recognized as "Featured Articles." The editorial board will work with the American Geophysical Union to publish highlights of these articles for distribution to the media. A select few will also be chosen for press

release. It is our hope that this will enable immediate broad dissemination of the most significant scientific results and more vigorously bridge the divide between the hydrologic research and the pressing water-related challenges to our society. We will continue to seek other avenues to bridge this gap as well as recognize the authors for their contributions. As we transition to all-electronic publication, we welcome suggestions for illustrations and images for display on the WRR homepage, particularly those related (but not limited) to featured articles.

[7] WRR succeeds in its mission through the hard work and commitment of its community, who set aside their own tasks to provide essential and constructive service. We are especially grateful to the reviewers, who make vary valuable contributions to the excellence of the journal.

Through the dedication of the authors, associate editors, and reviewers and the hard work of the WRR staff, this journal will continue to flourish and grow. We thank you and look forward to working with you during the next 4 years. We welcome ideas and suggestions you may have to make the publication process more efficient and user friendly. Our goal is to keep WRR as the premier journal in hydrology and water resources by growing with the changing, fascinating world of water.

Reference

Parlange, M. B., B. Berkowitz, A. Porporato, T. Torgersen, and S. W. Tyler (2005), Editorial: Future of *Water Resources Research*, *Water Resour. Res.*, 41, W01001, doi:10.1029/2004WR003899.