Special Issue

Nature-Based Solutions for Rainwater Management in the Urban Environment

Message from the Guest Editors

Nature-based solutions (NBS) used in sustainable urban drainage systems (SUDS) exploit natural techniques to control runoff formation. They are based on the restoration of fundamental hydrological processes that are compromised or strongly limited in the urban areas, with resulting critical conditions in urban drainage networks, pluvial floodings, and the pollution of the receiving water bodies. NBSs are also useful to increase rainwater harvesting and to control thermal energy fluxes in indoor and outdoor urban areas.

Research is still needed to define and quantify suitable performance indicators to assess the effect of the NBS on the resilience of modern cities, especially in areas where the rainfall climatology is most challenging.

We welcome research contributions employing experimental and numerical/analytical methods, the former based for instance on the verification of the hydraulic and hydrological performance of different NBSs on dedicated laboratory testbeds and/or field installations, the latter based on rainfall–runoff models and on numerical simulations of the hydraulic behavior of urban drainage solutions.

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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.

Editor-in-Chief

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