Sponge city construction—integrating green and gray infrastructure—principles have become the new paradigm for a sustainable urban stormwater management strategy. Deviating from the traditional rapid-draining approach, the new paradigm calls for the use of natural systems, such as soil and vegetation, as part of the urban runoff control strategy. It has become a widespread focus in urban water management research and practices globally. In this context, in order to present the latest developments, technologies, and case studies related to urban runoff control and sponge city construction, we propose this Special Issue.

Topics of interest include, but are not limited to, the following: the theories and technologies of sponge city construction; urban hydrology; methods of quantifying the benefits of a sponge city; rainwater utilization; practices that mitigate urban flooding and soil erosion; the performance of GI; the impact of media; preferential flow paths; vegetation; climate; design of the hydrological, hydrodynamic and pollutant removal processes; and case studies on sustainable urban design and management using LID-GI principles and practices.