Special Issue

Sustainable Design for Seawater Desalination

Message from the Guest Editors

Seawater desalination has become an increasingly important contributor to the world's freshwater supply. This is true not only for arid regions of the world but also for semi-arid regions in which the water demand from burgeoning coastal cities has exceeded the sustainable yield under climate changes. Desalination involves potential environmental impacts. Typical direct impacts include the entrainment and impingement of marine organisms into offshore intakes, or the exposure of organisms to constituents that have been concentrated or added through the desalination process. So far, many sustainable design features have been successfully developed and implemented to mitigate these impacts. The use of subsurface seawater intakes and discharge wells can also provide a buffer from the ocean. Yet, ongoing concerns remain in different areas, for example, the direct impacts of mechanical stresses to marine organisms due to the discharges and modifications to the groundwater flow due to subsurface intakes, and the indirect impacts due to increased energy consumption and greenhouse gas emissions caused by the power generation needed for the reverse osmosis (RO) processes.

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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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