Special Issue

Reservoir Sustainability: Engineering, Economics, and Ecosystems

Message from the Guest Editor

Water supply from storage is not keeping up with worldwide demand due to reservoir sedimentation. Most dams have been built to store deposited sediment rather than pass it downstream. This faulty design decision is the result of the shortsighted application of a comparision of benefits and costs. Storing sediment starves downstream reaches of this essential component of rivers, resulting in channel incision, degradation of ecosystems, and a shortage of sediment delivery to coastal deltas. Storing sediment also shortens the project design life, interferes with dam operation, and results in upstream progressing aggradation. Several methods for managing sediment are available and have been either incorporated into a few dam designs or more commonly applied late in the project life to extend benefits. This issue reports on methods to change economic analyses that will ensure sustainable design and operation for new projects and on methods used to date to manage sediment.

Guest Editor

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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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