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Editorial

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Editorial

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The stormwater management paradigm has changed in recent years. While in the not-so-distant past, channeling water as quickly as possible to the stormwater network and receiving environment was the main objective, nowadays the opposite is becoming the norm. Indeed, delaying runoff, promoting infiltration, treating stormwater, etc., are all measures that are being increasingly applied and which contrast with those of the past.

This change is justified by an increase of imperviousness from urbanization, which impacts both the receiving waters and the infrastructures themselves. Furthermore, climate change, leading to more frequent and severe rainfall events, exacerbates this reality.

It therefore seemed important to publish this themed issue on green infrastructure and stormwater management, to allow civil engineers to fully appreciate the problem and possible solutions.

The first article presents a study on the implementation of various solutions to mitigate the risk of basement flooding. It demonstrates the importance of having a global vision and working collaboratively with all stakeholders.

Low-impact development is used to shift from a conventional method to a more sustainable method for managing stormwater run-off. The second paper tackles the use of bioretention systems to reduce the water volume and peak flow sent to drainage networks during rainfall events.

One of the effects of climate change in some regions is the increase in the number of winter rainfall events. The third article presents the results of a study on the behavior and performance of green infrastructure in series in cold climates.

Finally, the last article presents a case study in developing countries, where, generally, the urbanization happens very rapidly, creating different flooding and stormwater management problems. The paradigm shift is even more crucial in these countries where stormwater can become a resource that compensates, to a certain extent, for the lack of water.

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