“Blue-green” corridors as a tool for erosion and stream control in highly urbanized areas – case study of Belgrade city

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Abstract Highly urbanized areas constantly need new surfaces for building of commercial, residential or infrastructure objects. Belgrade, the capital of Serbia, is a large regional centre with a population of 2 000 000 dwellers, covering a territory of 3500 km². The territory of Belgrade is intersected by 187 streams, with watersheds mostly rural in higher parts, urbanized and highly urbanized in lower parts. Torrential floods that once occurred rarely during pre-development period have now become more frequent and destructive due to the transformation of the watershed from rural to urban land uses. Authorities of Belgrade defined a strategy for erosion control and protection from torrential floods, based on the restoration of “blue-green” corridors (residuals of open streams and fragments of forest vegetation). The restoration of “blue-green” corridors helps the establishment of new recreational areas, the preservation of biodiversity and the mitigation of effects of climate change.

Key words “blue-green” corridors; erosion control; torrential floods; highly urbanized areas