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Effect of intense rainfall events on metallic and particulate pollutant fluxes in a small urban watercourse

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ABSTRACT

Effect of an intense storm event resulting in a combined sewer overflow (CSO) on metallic and particulate pollutant fluxes in a small urban watercourse (Zenne River crossing Brussels, Belgium) is presented. The origin and contribution of the different fractions of water to the total discharge at the monitoring station downstream of the city is reconstructed. The variations of the concentration of various metals during the survey (in the dissolved and particulate phases) are presented and show that the CSO to the Zenne, although resulting in a very intense increase of metal concentrations in river waters, has a similar effect as it would be expected from a natural resuspension process of river basin sediments.

KEYWORDS

CSO, metallic and particulate pollutants, storm conditions