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Systemic Approach to Risk Measurement of Drainage Systems in Urban Areas

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Abstract : The work delineates the threats of maladjustment of the capacity of rain canals, designed and built in the early 20th century, in connection to heavy rainfall, especially in summer. This is the cause of the so called 'urban floods.' It directly relates to fierce raise of paving in the cities. Resolving this problem requires a change in philosophy of draining the rainfall by wider use of retention, infiltration and usage of rainwater. In systemic approach to managing the safety of urban drainage systems the risk, which is directly connected to safety failures, has been accepted as a measure. The risk level defines the probability of occurrence of losses greater than the ones forecast for a given time frame. The procedure of risk modelling, enabling its numeric analysis by using appropriate weights, is a significant issue in this paper.

Keywords : risk management, drainage system, urban areas, urban floods
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