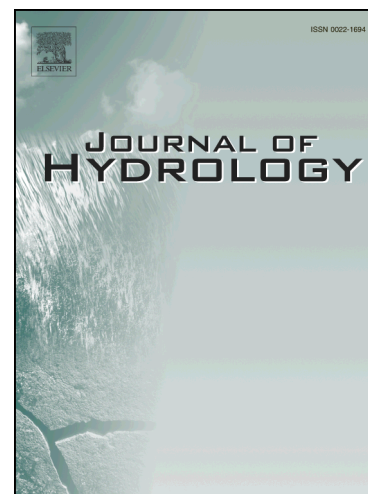


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Modeling framework for representing long-term effectiveness of best management practices in addressing hydrology and water quality problems: framework development and demonstration using a Bayesian method

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Abstract:

Best management practices (BMPs) are popular approaches used to improve hydrology and water quality. Uncertainties in BMP effectiveness over time may result in overestimating long-term efficiency in watershed planning strategies. To represent varying long-term BMP effectiveness in hydrologic/water quality models, a high level and forward-looking modeling framework was developed. The components in the framework consist of establishment period efficiency, starting efficiency, efficiency for each storm event, efficiency between maintenance, and efficiency over the life cycle. Combined, they represent long-term efficiency for a specific type of practice and specific environmental concern (runoff/pollutant). An approach for possible implementation of the framework was

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