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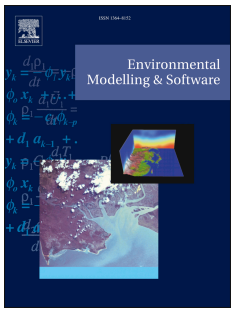

Controlling rainwater storage as a system: An opportunity to reduce urban flood peaks for rare, long duration storms

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Controlling Rainwater Storage as a System: An Opportunity to Reduce Urban Flood Peaks for Rare, Long Duration Storms

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Keywords

smart rainwater tanks; real-time control; urban flooding; genetic algorithm; simulation-optimization; low-impact development.

Data and Software availability

Name of software: 'Smart Tank Systems Optimizer' package for Optimizer™ by Optimatics

Developers: Ben Ernst (Optimatics Pty. Ltd.)

Year first available: 2018

Hardware required: PC

Contact address: Optimatics Pty. Ltd., U1, L2, 47 Waymouth St, SA, Adelaide, 5000

Telephone: +61 8 8410 1604

Fax: N/A

E-mail: ben.ernst@optimatics.com

Url: www.optimatics.com

Data set software required: The .opti files require Optimizer™ by Optimatics software package and can be made available on request at the discretion of Optimatics Pty. Ltd.. Some data files are as .csv or .xlsx, which can be opened using Microsoft Excel or other spreadsheet packages.

Availability: The 'Smart Tank Systems Optimizer' package must be run within the proprietary Optimizer™ software. The stormwater system simulation package used is EPASWMM, which is available at https://www.epa.gov/water-research/storm-water-management-model-swmm. Data including SWMM models and optimal solutions are available via Mendeley online repository at https://figshare.com/articles/Controlling_Rainwater_Storage_as_a_System/7127225.