Hydrol. Earth Syst. Sci. Discuss., 5, S2741–S2742, 2009

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Interactive Comment

Interactive comment on "A simple 2-D inundation model for incorporating flood damage in urban drainage planning" by A. Pathirana et al.

Anonymous Referee #3

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The impact of flooding on communities is extensive. It typically includes the damage to property, community infrastructure, the local economy and environment and causes individual and community distress. However, the urban flood modeling is very local, not general. The following recommendations could be useful for wishing to simulate an urban flood modeling in urban areas:

<For flood simulation>

For simulating urban flood, the major factors are topographic characteristics, the share rate of building, rainfall pattern, and pumping capacity. But the results of rainfall runoff analysis, flood routing analysis in the sewage pipe, and the modified equations included



building influence per each cell, etc are not explained in the paper anymore and only the calculated results of inundation in the city is shown. As the authors show the basic equations of shallow water surface in the paper, readers should not understand how boundary condition (Fig. 10) and water interaction between sewer system and overland flow (Fig. 2) has been decided.

 $<\!\! {\rm For flood \ damage}\!\!>$

The flood damage curve based on stage-damage curve in inundated area. The curve (Fig. 12) is not common, but local. The damage contents and its possession rate may be different in each region.

Finally, the conclusions are general, the readers may fail to find what is new and clear.

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Interactive Comment

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Interactive Discussion

Discussion Paper



Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 5, 3061, 2008.