Hydrol. Earth Syst. Sci. Discuss., 4, S19–S20, 2007
www.hydrol-earth-syst-sci-discuss.net/4/S19/2007/

Hydrology and Earth System Sciences Discussions

Interactive comment on "The effectiveness of polder systems on peak discharge capping of floods along the middle reaches of the Elbe River in Germany" *by* S. Huang et al.

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Received and published: 20 February 2007

You point out that the benefits of the quasi-2D approach are not sufficiently discussed. The aim of obtaining a 2D representation of the water flows in the polder is required for a subsequent simulation of sediment and micro-pollutant transport within the polders during floods. Such a modelling application is underway and the results will be submitted for publication in the spring of this year. Also, the reason we did not resort to a full-2D model is due to the large computational expense of such models (many hours). The model should be applicable also for operational flood management which is better carried out with a modelling approach that computes substantially faster, which is the

case with our model (runtime of a few minutes). These two benefits will be stressed in the revision.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 4, 211, 2007.