

Interactive comment on “Model Study on Potential Contributions of the Proposed Huangpu Gate to Flood Control in Taihu Lake Basin” by Hanghui Zhang et al.

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We appreciate the comments from the reviewer very much, and truly believe these comments can help us to improve the quality of our manuscript. We hope the manuscript after modification would achieve publication status. We provide responses to the main comments as follows.

Like the Thames barrier in London, the proposed Huangpu gate also has the function of preventing tide intrusion. Besides, the Huangpu gate also can help the lake and the upstream areas to drain flood water when basin-level floods occur. This paper provides quantitative analyses of the potential benefits of the proposed Huangpu gate when the basin suffers monsoon-induced floods. These conclusions are very important for the

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basin authority's management.

Although the model used in the paper is not completely new, we modified the model codes to accommodate additional capabilities for the more accurate simulation. This modification can simulate the complex operational rules of the proposed gate, where its operational rules will be applied for the flood tide and ebb tide, respectively. As far as I know, there are very few models can simulate such a precise operation rules.

Please find the new manuscript after modification in attachment.

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/hess-2016-310/hess-2016-310-SC2-supplement.pdf>

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-310, 2016.