

Reply to the editor of paper hess-2019-334

On the representation of water reservoir storage and
operations in large-scale hydrological models:
implications on model parameterization and
climate change impact assessments

Thanh Duc Dang, AFM Kamal Chowdhury, Stefano Galelli

Resilient Water Systems Group
Pillar of Engineering Systems and Design
SUTD, 8 Somapah Road
Singapore 487372
T. +65 6303 6600
http://people.sutd.edu.sg/~stefano_galelli/

Editor

Dear colleagues,

your paper is rather ready for publication. However, as the editor in charge for this manuscript, I suggest you add a better understandable description of your innovative part of the VIC-model (Water reservoir storage and operations, section 3.1.2). This means, you should give the equations which you apply in the routine (currently you only give text), and you also may add a graphical scheme which enables the reader to grasp the main components of this new routine.

I think this should be feasible.

Kind regards
Axel Bronstert

Dear Professor Bronstert,

We would like to thank you for the positive response and opportunity to revise our work. Following your suggestions, we:

- Introduced the key equations characterizing VIC-Res (i.e., reservoir mass balance and release function) in Section 3.1.2;*
- Added a graphical scheme that illustrates how the information on water reservoirs is implemented in the model. To keep the paper focused on the model (rather than the implementation), we preferred to add the scheme to the supplement—please refer to Section S1.*

*Best,
Stefano Galelli (corresponding author)*