Corrigendum to Geosci. Model Dev., 8, 2009–2034, 2015 www.geosci-model-dev.net/8/2009/2015/doi:10.5194/gmd-8-2009-2015-corrigendum © Author(s) 2016. CC Attribution 3.0 License.





Corrigendum to

"SPHY v2.0: Spatial Processes in HYdrology" published in Geosci. Model Dev., 8, 2009–2034, 2015

W. Terink¹, A. F. Lutz¹, G. W. H. Simons^{1,3}, W. W. Immerzeel^{1,2}, and P. Droogers¹

Correspondence to: W. Terink (w.terink@futurewater.nl)

Published: 11 February 2016

Correct equation for lateral flow (Eq. 40)

In the original SPHY publication the equation for lateral flow (Eq. 40) was written incorrectly. This is explained below.

For small travel times the (TT_{lag}) , the $\left(1 - \exp\left[\frac{-1}{TT_{lag}}\right]\right)$ part becomes more or less equal to 1. This means that although there may not be any lateral flow generated in the current time step t, it can infinitely continue generating lateral flow from the previous time step.

The correct Eq. (40) should therefore be

$$LF_{l} = LF_{l}^{*} \cdot \left(1 - \exp\left[\frac{-1}{TT_{\text{lag},l}}\right]\right) + LF_{l,t-1}^{*} \cdot \exp\left[\frac{-1}{TT_{\text{lag},l}}\right]. \tag{1}$$

¹FutureWater, Costerweg 1V, 6702 AA Wageningen, the Netherlands

²Utrecht University, Department of Physical Geography, Heidelberglaan 2, 3508 TC Utrecht, the Netherlands

³Delft University of Technology, Faculty of Civil Engineering and Geosciences, Department of Water Management, Stevinweg 1, 2628 CN Delft, the Netherlands